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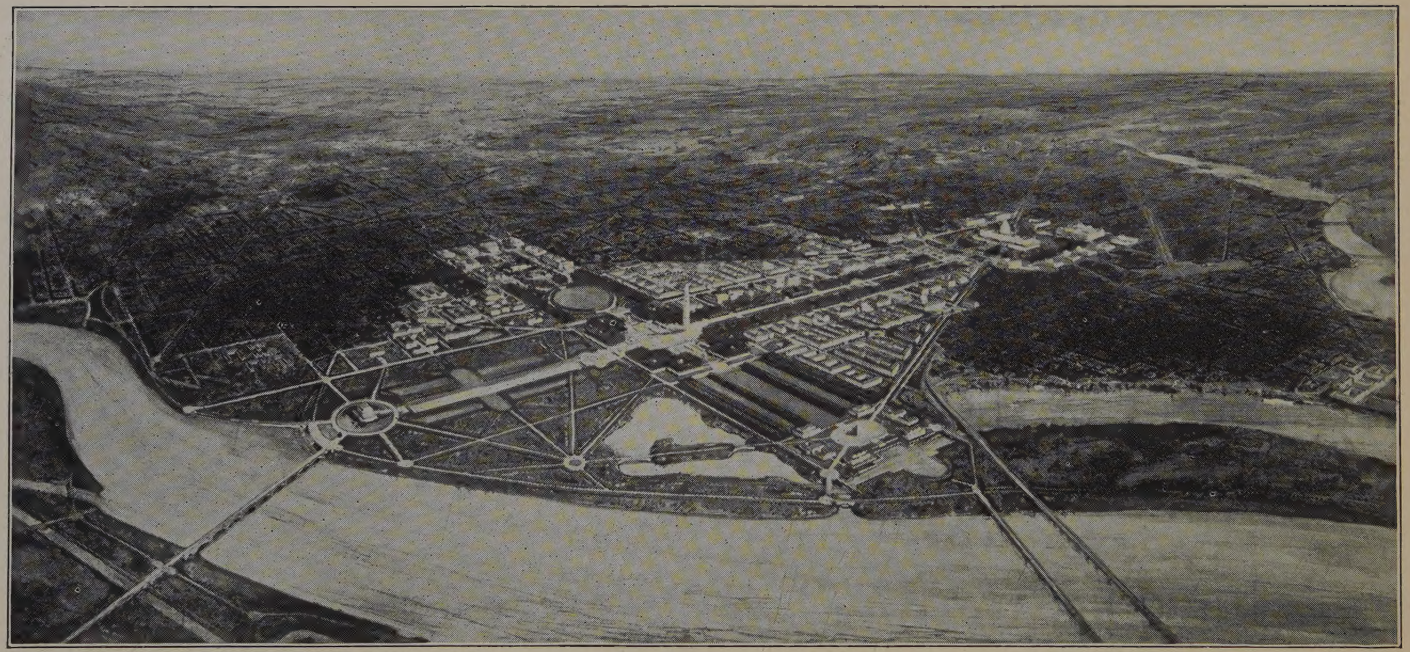

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OUR CITIES TO-DAY AND TO-MORROW

A SURVEY OF PLANNING AND ZONING PROGRESS IN THE UNITED STATES

BY

THEODORA KIMBALL HUBBARD

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PREFACE

The planning of cities and regions has become a recognized community activity and responsibility within less than two decades. To plan intelligently and comprehensively we need to know many things which are now only half understood, and we need to compare, analyze, and appraise experience before we can be sure of basic principles. The natural unorganized power of our cities for the adaptation of means to ends has proved entirely inadequate to cope with the present accelerated rate of change. City planning, however, cannot wait for research. Many communities are on the point of being, as it were, overwhelmed on the field of battle. Those charged with administering municipal government must plan their tactics and even their major strategy under fire. This situation has forced cities and city planners to make decisions on insufficient data, — to use weapons fashioned from opportunistic facts rather than from facts scientifically chosen and wrought out. Only in the last three or four years have arisen the beginnings of a more penetrating comparative scrutiny of methods now employed and an appraisal of elements of success or failure in their application.

Before we can choose the most promising subjects of research, — the subjects most likely to furnish ammunition immediately usable in the fight against congestion, against unbalanced distribution of urban population and unwholesome urban environment, — it is essential to know what experiments are being made in the cities of the United States and what results have come from specific lines of action in dealing with specific situations. We should guard ourselves, however, against producing voluminous compilations of ignorant opinions, or tabulations and listings of undigested or insignificant information.

Harvard University made a grant from the Milton Fund for Research to the authors of the present book for "a survey and analysis of city planning and zoning progress in the United States." It was obvious that if a field study were to include a sufficient number of cities and regions to be representative of the whole country, and if this considerable number were to be studied contemporaneously, the result would have to be a bird's-eye view, merely scanning the surface of planning experience in the United States to-day to spy out what fields are fertile and what barren,

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and where one may go for further study of promising methods of cultivation. Although one of our friends has christened this book in advance the "City Planning Baedeker," it scarcely could pretend to that appellation, since "Baedeker" is synonymous with completeness and we had to be content with a discriminating selection in our itinerary.

It was obvious, too, that the facts gathered during the field study must be quickly assorted and presented, before changed conditions and new situations should render them less valuable because stale. As ammunition for the technical planner or the city official, the greatest usefulness of a rapid study appeared to us to lie in the setting forth of these freshly accumulated facts primarily in their relation to each other and to the whole field now embraced by what we call city and regional planning.

In the five months allotted to the study tour and the still fewer months to interpretation of the assembled data, it was from the first plainly impossible for us to study *all* the phases or departments of really comprehensive city and regional planning. We therefore made no attempt to cover housing except as housing is related to zoning and platting, nor did we select for study examples of new towns such as have been already ably discussed by Dr. John Nolen and others. Neither did we undertake to study progress in another important special field, the comprehensive planning of utilities, especially sewerage and water-supply systems, which are fundamental to regional development. The limitations of time and of our own capabilities confined us to the elements of planning most commonly dealt with to-day by the competent general practitioner of city planning, if we may use such a term. While this book deals therefore with zoning, control of land subdivision, major street systems, mass transportation, rail, water, and air terminals, park and recreation areas, aspects of the city's appearance, with the legal and administrative means of effecting city and regional planning, and with the education of the public to support planning measures, we fully recognize also the essential importance of the social and engineering phases of housing and utilities which this book has been able only to suggest.

Our Annual Surveys of City and Regional Planning published each year in *City Planning* have necessarily had to be based largely on news secured by correspondence or from publications. The Milton Fund grant enabled us to send a field representative, Mr. Howard K. Menhinick (a graduate in City Planning of the Harvard School of Landscape Architecture) to visit about 120 cities and 15 counties and regions in all parts of the United States to secure first-hand information from responsible

officials and leaders in the city planning movement as to local procedure and results. He took with him a "Schedule of Desired Information" — since humorously referred to as "The Hubbards' third degree" — in order that the information secured might be more immediately available for purposes of comparison and might facilitate producing this book with reasonable promptness.

Some of the field notes taken by Mr. Menhinick on subjects of particular current interest will be found in the Appendix. All the notes have served as the basis for the comments and conclusions embodied in the chapters of the book. There has been no attempt to present tabulated statistics of the questions answered: obviously such statistics would not be complete, for in many other cities beside those visited similar information not collected by us might be even more significant along particular lines. The series of local comments found worth while to include in the Appendix, and the many more worked into the fabric of the book itself are, to our minds, far more useful than a more complete series of mere statistical summaries of facts collected in the selected cities and counties.

Mr. Menhinick has constantly worked with us during the writing of the book, helping us to interpret and evaluate the notes taken in the field and the published and unpublished documents furnished in many cities to supplement information given orally. We have relied on his observations to check the opinions we have formed from his reports and from our own experience for many years. We believe him to be an unusually keen observer, and we wish to acknowledge the interest, enthusiasm, and skill which he put into the study tour, — keeping absolutely to an arduous schedule arranged by Mrs. Hubbard from Cambridge weeks in advance, and meeting untiringly the local demands for general information which we conceived to be an inevitable and desirable by-product of the field study. Such a by-product was recently called to our attention in the annual report of the City Planning Commission of Wichita, Kan., which was kind enough to attribute to the visit of our field representative, and his explanations of the advantages of extra-territorial control of land subdivision, the stimulus which secured authority for this control just granted by the State Legislature of Kansas. In thus furnishing desired news of many cities' experience in planning, we could make some return for the countless courtesies shown throughout the field study to Mr. Menhinick and to us. He joins us in gratitude to the hundreds of busy officials and citizens who cheerfully gave time and thought that the

information for the field study might be as complete and representative as possible.

Among those fellow-members of the American City Planning Institute to whom we are particularly indebted for suggestions as to the selection of communities to be studied and the character of the information to be secured are Mr. Harold S. Buttenheim, Mr. Harland Bartholomew, Mr. Robert Whitten, and Mr. Flavel Shurtleff. To the Division of Building and Housing of the United States Department of Commerce, and to Mr. James S. Taylor, Acting Chief, we are also deeply indebted both for advance suggestions and for constant advice and aid during the field study. To Frank B. Williams, Esq., we are indebted for critical comments on Chapter II, and especially to Alfred Bettman, Esq., for additions to that chapter and for constant aid in many ways during the study and the production of the book. We owe thanks to Mr. S. Herbert Hare who represented the field study in Houston, Texas, which Mrs. Hubbard was unable to visit when studying Dallas and Fort Worth in May, 1928, — these being the only three cities in the study not visited by Mr. Menhinick. For freely-given help in planning the details of the five-months' tour we are greatly indebted to Mr. R. H. Toy of George E. Marsters, Inc., whose advice enabled us to cover the most ground in the least time. We appreciate also the unfailing interest and coöperation of our special field study secretary, Miss Eleanor W. Bowker.

Both in planning the field study and in verifying countless references for the book, the city planning collections of Harvard University in the School of Landscape Architecture Library have been continually used, and we desire to express our gratitude to the Librarian, Miss Katherine McNamara, and her assistants for their substantial contribution to the enterprise. We hope to make some return by presenting to the library all the documents, illustrations, and plans which were given to us as data on planning practice and experience. Had space permitted, we should have liked to reproduce in this volume much more of the interesting graphic material collected. For these documents, illustrations, and plans, and for all the information furnished orally, or in specially prepared supplementary notes and correspondence, by officials, consultants, and citizens, we can only inadequately express our thanks. We should like to send each one a complimentary copy of this book as a slight return; if we did so, however, one third of the whole edition would scarcely be sufficient, — so generous and widespread has been the coöperation accorded this study. Perhaps a few of the local by-products already

alluded to, and above all the availability in this book of information on current practices in dealing with planning problems may serve to justify the rather onerous tasks which we laid upon our many friends and co-workers to advance our common purpose.

T. K. H. and H. V. H.

CAMBRIDGE, MASSACHUSETTS
June 7, 1929

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OUR CITIES TO-DAY AND TO-MORROW

CHAPTER I

THE PRESENT STATUS

City and Regional Planning To-day Widespread

TEN years ago at the close of the Great War, the conception of planning for the future development of cities and regions was recognized as an ideal by a growing number of far-sighted citizens and technical men; but the practical interpretation of this ideal into actual guide plans accepted by municipal authorities was limited to a relatively small number of great cities and occasional suburbs, and to experiments such as company industrial villages and especially the war housing towns, which, in America as in England, secured a measure of official sanction for the movement. Going back ten years before that, the Plan of Chicago had burst upon the country, revealing a vision and technique then uncomprehended by more than a handful out of the thousands of citizens to whom the term "city plan" to-day means something worth voting money for and something worth fighting for when selfish interests seek to replace a community master plan by schemes for private gain.

There are in the United States at the time of writing (Spring, 1929) over 650 municipalities having official planning commissions, in addition to nearly a score of counties and regions. According to the Department of Commerce figures of April, 1929, as against scarcely more than 100 six years ago, now 754 communities have adopted zoning ordinances regulating at least the uses of land; and their combined population represents three-fifths of the urban population of the entire country. This population lives in communities numbering about a quarter of the total number of incorporated places having a population of 2500 or more.

There is no state where some form of movement to secure the benefits of planning and zoning does not exist. The introduction of state laws authorizing planning and means of financing plans, debates over the enactment of municipal ordinances creating plan commissions or adopting zoning regulations, the choice of members of planning bodies, the submission to voters of bond issues for permanent plan improvements, all are subjects of widespread news value, featured in national as well as local press services, and brought constantly to public attention in the daily papers.

A glance at the programs of meetings of state and national municipal leagues, state and national associations of real estate boards, chambers of commerce, local and national societies of civil engineers, architects, and landscape architects, and other tangent professions, shows that phases of city and regional planning are vital subjects of discussion, having place among the many more specialized problems which the rapid growth of cities has forced upon administrators and technical men. Devoted entirely to planning, several state conferences and the National Conference on City Planning each year hold sessions in which experiences are compared and new theories put forth and appraised; the Planning Foundation of America, a subsidiary organization of the National Conference, has just been incorporated to promote public knowledge of planning. The American City Planning Institute, composed of active practitioners of city planning, is working steadily toward the establishment of fundamental planning principles.

At Harvard University there is a long-standing course of professional instruction in city planning, now enlarged to the Graduate School of City Planning with an extensive program of research. In eighty or more colleges and universities, some instruction is given as part of a general or technical education. A considerable number of civics textbooks for use in elementary and high schools devote one or more chapters to the field of city planning. In a long list of technical journals and in many general and popular magazines, articles on problems of planning appear from time to time; and in two journals (the *American City Magazine* and the quarterly *City Planning*) there is a steady stream of news and exposition of theory, indicative of a growing, healthy social science and art.

Brief History of Planning Movement in the United States

The conscious planning of cities in a virgin colonial country, such as Philadelphia and Savannah, rested on a proprietary motive inspired by royal precedent. The city was created out of whole cloth to fit an ideal to which the intended inhabitants were expected to conform. During the early Republic, the ideal seen in the founding of Washington had become splendidly democratic, but the form chosen still drew inspiration directly from traditional expressions of autocracy. The New England villages, purely democratic in their founders' conscious and seemly adaptation of English village forms to a new land, nevertheless were not conceived in terms of future cities. The planned pioneer western towns of the first fifty years of our national life were largely of a quasi-proprie-

tary or speculative character, patterned after the tradition of engineers from ancient times and making little contribution to city planning art or science. It was not until the middle of the nineteenth century, when a period of urbanization in the East began to be consciously recognized, that a really democratic experiment in city planning may be said to mark the beginning of our modern movement in America.

The citizens of New York in undertaking the development of Central Park in 1857, and later of a related series of public improvements in Upper Manhattan and Brooklyn, — forming in essence a park system as we conceive it to-day, — initiated the most fertile American municipal enterprise to that date. The professional services of Olmsted and Vaux, first engaged by both New York and Brooklyn on park work, were extended to problems of thoroughfares and local transportation; the reports of the Commissioners and their technical advisers made in these connections during the sixties and seventies constituted the first substantial group of plan studies for a modern American urban region, and enunciated planning theories reasoned on social, economic, and esthetic lines, which are recognized and valid to-day.* Following the example of New York, by 1880 similar park undertakings were under way in a score or more of larger American cities, usually with the advice of F. L. Olmsted, Senior, or H. W. S. Cleveland; in only a few, however, was there any study comparing in comprehensiveness with the original enterprise of New York. The park studies of Mr. Cleveland for the Minneapolis - St. Paul region foreshadowed the spread of planning beyond municipal boundaries. Of the Olmsted park plans prior to 1890, those for Chicago, Buffalo, Rochester, Boston, Knoxville, and Louisville, had a particularly significant part in moulding the character of the growth of these cities.

Shortly after 1890 two sets of forces simultaneously expressed themselves in definite form. On the one hand, the park movement crystallized in the Boston Metropolitan District and in Kansas City into more completely organized examples of conscious city planning: the building and financing of these park systems had a striking immediate influence in the nineties similar to that of the Westchester County parks to-day. On the other hand, the World's Fair at Chicago in 1893 set before the country a visualization of civic possibilities, realized abroad but neglected in America during the period of industrial pioneering which followed the

* See the chapters "Influence on American Life" and "Relation to City Plan" in *Central Park*, Vol. II of Olmsted Papers, edited by F. L. Olmsted and Theodora Kimball.

earlier dignity of nascent Republican life. The beauty and unity of the World's Fair marked a renaissance of the ideals of Jefferson and Washington in city building. The collaborative effort of Burnham, Olmsted, and the great staff of other artists in creating the "White City" set the precedent for the coöperation of the professions in producing order and amenity in city development.

By the measuring rod of the beautiful White City, disorderly and inharmonious appearance was the most immediately striking characteristic of the overgrown cities to which thousands of citizens returned after their pilgrimages to Chicago, and it is small wonder that the movement directly traceable to the World's Fair took as its slogan "The City Beautiful" and that the endeavor of its leaders was directed toward aspects of public architecture, of axial relationships, of planting decoration, and the removal of surface ugliness. It should be remembered that, starting as a great social movement just after the mid-century, city planning went through at the century's close a superficial phase almost equally significant. The reaction against sheer ugliness, followed by a counter-reaction against planning mainly for externals, shocked public attention at each swing of the pendulum and brought a return to the more vital and balanced conception which is now embraced in city and regional planning.

The first landmark after the World's Fair was the revival of the Plan of Washington in 1900 through the appointment of the Park Commission comprising D. H. Burnham, F. L. Olmsted, Jr., Charles McKim, and Augustus St. Gaudens. The Commission's report in 1902 set before the nation a picture of a worthy and beautiful Capital, built along the lines of the original L'Enfant plan but amplified and reinterpreted in twentieth century terms. In 1901 appeared Charles Mulford Robinson's book *The Improvement of Towns and Cities; or, The Practical Basis of Civic Aesthetics* which spread the gospel far and wide, followed in 1905 by his *Modern Civic Art.* During the next six or seven years after the Park Commission report on Washington, a score of plan reports were prepared for cities North and South, East and West, mainly by Mr. Burnham, Mr. Olmsted, Mr. Robinson, and Mr. John Nolen, in varying degrees of detail, but all except the Burnham report on San Francisco (which was a distinguished architectural conception) were directed mainly to educating local opinion as to the value of planning, suggesting certain definite projects by which beauty and greater convenience might be encompassed.

We look back to the Burnham and Bennett report of 1909 for Chicago,

referred to earlier, as another landmark, because this "noble logical diagram" has had so practical a measure of control in the building of Chicago, and because the organization formed to guide the carrying out of the plan has exerted so profound an influence on planning work in other cities. In 1909 the city planning movement began in Dallas, Texas, which, under the leadership of the *Dallas News* and the guidance of the late George E. Kessler, spread through the Southwest. In 1909, too, the report "Public Improvements for the Metropolitan District" of Boston set a new standard of technical participation and regional considerations in planning. In the same year the first National Conference on City Planning was called in Washington at the instance of The New York Committee on Congestion of Population, followed by the permanent organization of that name in 1910. In 1911 the National Housing Association held its first conference, marked then and ever since by the participation of those interested in the broad planning aspects of home areas. In the same year important plans for Pittsburgh and Seattle were published.

In 1910 the President of the United States had appointed the National Commission of Fine Arts, charged with the protection of the esthetic aspects of the plan of the national capital and of federal structures throughout the country. In 1913 the Heights of Buildings Commission of the City of New York issued its epoch-making report on the regulation of the height, size, and arrangement of buildings which was to result (in 1916) in the New York zoning ordinance and in the recognition of comprehensive zoning as harmonious with American constitutional liberties.

In the next three years there were several attempts to codify and make known what American thought and experience had evolved from the brief operation of city planning, as it appeared legally feasible and technically desirable. *Carrying Out the City Plan* by Shurtleff and Olmsted, *City Planning Analysis* by Pray and Kimball, *Housing and Town Planning* issued by the American Academy of Political and Social Science, the National Municipal League volume *City Planning: a Series of Essays*, and especially *The Planning of the Modern City* by Nelson P. Lewis, — all published by 1916, — indicate that the social and scientific phase of planning had superseded the predominantly esthetic.

The development of a technical group, as distinguished from those leading in more general aspects of civic improvement, was signalized in 1917 by the organization of the American City Planning Institute within

the National Conference on City Planning. In the same year the American Institute of Architects published an illustrated compendium called *City Planning Progress in the United States* which gave for the leading cities of the country an epitome of the city planning movement and local improvement schemes. This publication may be considered to mark the close of an era of planning in America, — the era of picture plans and over-ambitious schemes, many of them unsuited to the purse or powers of the cities involved. A comparison of the projects noted in this retrospective summary of 1917 with the record of actual achievements reported in the cities visited during the present field study reveals sharply as piecemeal or one-sided or impractical the types of early plans now discarded, and as rooted in broader social and economic considerations those fewer types which are still alive.

The influence of the pre-war period in city planning upon planning progress to-day has manifested itself not only in the steady growth of wisely drawn early plans, as in Chicago and Washington, but in the blighting of public confidence in those cities where plans unsuitable at least in some respects were secured at public expense only to be relegated in entirety, justly or unjustly, to the scrap heap. European traditions of beauty, geometrical patterns on plan, have an appropriate place in determining desirable esthetic relations of visual units in city plans, — especially now in the aspect of cities seen from the air, — but the controlling influence of these which emanated from the World's Fair has now become the servant instead of the master of considerations of public welfare.

The adaptation of limited means to achieve some measure of beauty and amenity under rigid requirements of speed and space taught the group of town planners concerned with the war-time housing of industrial workers and shipbuilders, during 1918, what England had earlier learned through garden city and garden suburb experiments. The acquired technical experience in the development of neighborhoods of low-cost homes, as summarized in the Report of the United States Housing Corporation in 1919, has had a strong influence on subsequent city planning: it may be held to mark the crystallization of an attitude which worked from the home toward the community, rather than from the civic center outwards.

In viewing the status of the city planning movement to-day throughout the country, we must remember that not all parts of the country are in the same period of development either as regards urgent and recognized need for planning or as regards the cultural stage of the

community. Taking advantage of the new practical and scientific viewpoint of the present-day city planner and avoiding the errors of twenty years ago in methods of conceiving plans, we still can learn much of positive value from the lessons of a quarter-century in educating public opinion and applying to backward communities a measuring-rod or a goad. We should not, however, begin with the partial planning which has often been the necessary preliminary to the comprehensive, in those experimental days when, as Mr. Harland Bartholomew has pointed out, city administrations could scarcely be expected to undertake such new and revolutionary measures except by gradual stages.

The most potent single recent influence on city planning in the United States is undoubtedly the establishment by President (then Secretary) Hoover in the United States Department of Commerce of a Division of Building and Housing, with an Advisory Committee on Zoning later expanded in scope as the Committee on City Planning and Zoning. As a result of this committee's work, standard zoning and city planning enabling acts have been issued and used widely as a basis for enabling legislation, and thousands of copies of the Zoning Primer and the City Planning Primer have been circulated wherever communities have undertaken zoning and planning enterprises. Public confidence in planning as a legitimate sphere of municipal activity has been enormously increased. This recognition by the federal government of the economic value of planning as a means of eliminating waste and as a necessary business of community expansion, and the recognition by the courts of planning as a legitimate means of promoting social welfare, have effectually laid the restless ghost of "the City Beautiful" and are now placing in the minds of hard-headed legislators the conviction that haphazard city development is more expensive as well as less attractive and less socially desirable.

Character of Present Planning

No matter how specialized many of the technicalities of planning may appear to be, there is no doubt that the planning movement in America to-day is a *great social movement*, rooted in the desire to give to present and future generations a chance to be healthier and happier, a chance to have the inspiration and strength to make a greater contribution to the common welfare while enjoying the balance of work and play which develops individual and social character. That community welfare is paramount is recognized by the courts in zoning decisions: on no

other basis has the development of community power over individual rights been justified.

To a comprehension of community needs certain basic assumptions must contribute, such as those set forth by the Regional Plan of New York and Its Environs *: betterment of living conditions promoted by improved environment of dwellings, by saving of waste in land development, and by adequate facilities for transportation, recreation, and other social needs; adequacy of total space, so that overcrowding of buildings on land is unnecessary; reasonable concentration of business; balance in distribution of population and industry to eliminate "friction of space" in transportation; public recreation areas proportioned to population densities, accessibility, and type of use. Such considerations indicate the nature of surveys needed for preparing comprehensive city and regional plans.

As distinguished from the amateurish character of improvement reports twenty years ago, the city plans of to-day are marked by a high degree of technique. An examination of a dozen or so current reports from the offices of skilled planning consultants demonstrates that, in the opinion of these technical experts, certain data are necessary, arranged in certain forms, before definite projects can be proposed. The technique of survey-making is highly developed, — occasionally too highly, running away with common sense. The evolved technique of presenting plans for official and public consideration has brought about certain standardized forms differing with different consultants but mostly marked by competency and authority. Municipal employment of consulting technical services for comprehensive plans or major projects has grown rapidly, — in fact, the use of technical advice is a striking characteristic of successful plans to-day.

Ten years ago the body of American planning legislation was relatively small. Planning enterprises operated under existing laws or charter powers frequently not well adapted to securing results. The studies especially of Frank B. Williams, Esq., Edward M. Bassett, Esq., and Alfred Bettman, Esq., backed up by the Department of Commerce standard acts, have succeeded in establishing legal recognition of planning, and have opened the way for the passage of laws more exactly suited to modern planning procedure.

The validity of zoning based on comprehensive planning has been recognized by the Supreme Court of the United States. Other impor-

* *Planning the New York Region*, 1927.

tant phases of planning coming before State Supreme Courts have been held constitutional in broadly stated decisions, indicated in the next chapter. As already suggested, many of these decisions have clearly related the planning principles involved to their justification in health, safety, morals, and the public welfare: certain paragraphs of the Euclid Village decision might indeed be selected as indicating conclusively the graduation of planning from its groping infancy into the company of the sciences.

Representative Examples as Subjects for Field Study

It was plainly impossible for the purpose of drawing conclusions from the present state of city planning in this country to visit all the cities and regions where plans have been initiated or carried out, although all cities in the United States having a population of 200,000 or more were included in the study. Representative examples had to be selected from diverse points of view: cities and counties where successful planning has resulted in improved convenience and amenity, cities where attempts at planning have been frustrated, cities just undertaking comprehensive plans, cities which have concentrated on some major phase of planning, metropolitan regions, large cities, small cities, state capitals, industrial centers, ports, resorts, and so on.

The necessarily fragmentary results from such a survey of examples, however, can be compared with the well known experiences of a far larger number of cities not specifically included in this field study. In the ensuing brief analysis of municipal planning activity considered in relation to basic physical, social and economic conditions, the conclusions drawn from the hundred and more selected examples have been modified by contributing facts from five or six hundred cities and towns, as these have been observed over a long period of years.

Planning Activity of Cities Studied in Relation to Physical and Social Conditions

Size of population and rapidity of growth have had a very direct influence on planning activity. The Regional Plan of New York was undertaken when the difficulties of providing for nearly six million people in the City of New York became acute. The Bogue Plan of Seattle was made just at the close of the decade during which the population of the city grew from 36,000 to over 100,000. Akron had almost tripled in size in one decade prior to the initiation of its planning work. Johnstown,

Pa., experienced a peak of rapid growth just before it undertook planning in 1917. Dallas had doubled its population in the ten years before the Kessler Plan was made and almost doubled it again before the campaign of public education which caused the projects of the plan to be put into construction. In Texas also, El Paso and Houston, in Oklahoma, Tulsa, Oklahoma City, Ponca City similarly all grew with great rapidity and joined the planning movement in the Southwest, to which Phoenix, Ariz., has just been added. Tacoma, Wash., Portland, Ore., Oakland and San Diego, Cal., Salt Lake City, Duluth, St. Paul, and Minneapolis, Kenosha, Wis., Canton, O., Knoxville, Tenn., Greensboro and Durham, N. C., Norfolk, Va., Jacksonville, Fla., and Bridgeport, Conn., all show great rapidity of growth as an undoubted stimulus to city planning. The only one of the cities included in the field study which has grown unusually fast and failed to undertake officially the preparation of comprehensive plans is Birmingham, Ala.

All the very great cities have thriven and increased; and of these only Philadelphia and New York have no official city planning commission. Chicago and St. Louis by steady accretions, Detroit and Los Angeles by leaps and bounds, have grown and planned, and planned to grow. Every city studied which had in 1880 a population of 100,000 or more, has undertaken one or more phases of planning; and those cities (except Birmingham) having in 1880 a population of about 50,000, or far less, which are now about 200,000 or greater — Akron, Altoona, Atlanta, Dallas, Dayton, Kansas City, Memphis, Minneapolis and St. Paul, Norfolk, Oakland, Omaha, Portland, Ore., Seattle, Syracuse — began their planning activities many years ago when the shoe began to pinch. Buffalo and Cleveland, already great in 1880, though smaller than Cincinnati, have surpassed the latter in size and undertaken planning earlier, but now lag behind in comprehensiveness of planning and achievement.

Wichita, Kan., and Evansville, Ind., have had a less rapid, but strong and steady growth; and still less rapid, but consistent, are a dozen other cities which have also undertaken comprehensive planning without the impulsion of sudden increases of population.

It is reasonable to assume that, while an intelligent eye to the future has caused a very considerable number of communities to turn to planning as a necessary business of government, the actual pressure of population has caused a greater percentage of cities of the same general class to seize upon planning as a measure of relief.

Courtesy of Chicago Plan Commission

MICHIGAN AVENUE, CHICAGO

Looking north from the Bridge over this two-level street improvement, carrying out the Plan of Chicago

Although all the cities of over 200,000 population were studied, there were seventeen out of forty-eight cities with a population of from 100,000 to 200,000 which were omitted, for one reason or another. Leaving out Youngstown, O., and Flint, Mich., which would have been included had time permitted, none of the other fifteen cities of this size had shown any distinction or in a few instances any real grasp of city planning. There is apparently a point somewhere about 200,000, when the total proportion of cities active in planning as against cities of similar size not active, — especially cities overshadowed by a great metropolitan neighbor — begins to fall, in contrast to the overwhelming proportion of cities from 200,000 up which are really meeting planning problems with energy and enterprise.

The amount of undeveloped area and the relation of the city to the character of the surrounding region have naturally had a marked influence on activity in the control of land subdivision, but apparently little or no effect in stimulating cities to undertaking comprehensive planning. Very large annexations of undeveloped or poorly developed areas have sometimes stimulated planning but placed any measures except those possible under the police power beyond the financial capacity of the city. Comprehensive planning has been undertaken equally by Rochester with 10 per cent of its municipal area undeveloped, Minneapolis with 12 per cent, Dayton with 15 per cent, Memphis with about 20 per cent and Cincinnati and Los Angeles with 50 per cent, Madison, Wis., with 40 per cent, Des Moines with over 60 per cent, and Duluth with over 60 per cent of its area undeveloped and 45 per cent unplatted, and San Diego with 80 per cent unused.

These figures show that cities are grasping the great opportunities for new planning, and also that those cities with almost all the land within their jurisdiction now built up should hasten to promote control in surrounding territory into which their populations will soon be growing.

The ratio between large or small total area and size of population appears to have no effect whatever on the amount of planning activity. Washington, D. C., and Detroit have about the same ratio of area to population, 1 acre to 14 people, and Los Angeles only about 1 to 5, as against approximately 1 to 25 for Milwaukee or 1 to 20 for St. Louis, — all equally active in planning work; and the same variation holds true among the smaller cities studied. Turned about the other way, density of population calculated in relation to total available area has had no apparent effect in convincing cities of the need to plan. Beyond a certain

size of population no matter how much room there is, the problems of living together in urban communities are sufficiently pressing to cause a demand for planning.

Topographic character has created difficult situations and thus become a potent factor in promoting city planning, in Cincinnati and Akron, O., Pittsburgh, Altoona, and Johnstown, Pa., Knoxville, Tenn., Asheville, N. C., Duluth, Minn., Kansas City, Mo., Salt Lake City, Portland, Ore., Seattle and Tacoma, Wash., and San Diego, Los Angeles, and San Francisco, and (as we see in Chapter IX) planning problems have also been acute in cities much cut by rivers or other bodies of water, such as Des Moines, Milwaukee, Minneapolis, St. Paul, Madison, Wis., Rochester, Buffalo, Houston, New Orleans, or Norfolk, Va.

Only a few of the cities studied had very flat, unbroken topography; and of these Chicago, Detroit, Indianapolis, Fort Wayne, Toledo, and Brunswick, Ga., were found very active in planning while Charleston, S. C., Savannah, Ga., and Tucson, Ariz., for other reasons were inactive.

For the convenience and amusement of our readers we have classified the cities studied into *groups according to main functions*, listed in the Appendix. Of the metropolitan cities all have very active official agencies in city planning at the present time except New York, Philadelphia, and Baltimore, and the mayors of New York and Philadelphia are taking preliminary steps toward establishing official agencies to bear their share in the active regional undertakings of unofficial planning agencies.

The National Capital holds a unique position in planning, but state capitals have by no means followed its example. Twenty-one state capitals were omitted from the field study because of almost entire lack of planning interest or activity; in several of those studied, present interest was not great or else dampened by politics.

Birmingham, Ala., and Jersey City, N. J., were the only large industrial cities visited found to be without an official city planning commission. Cities with a single industry or varied industries have alike been active, but those with a single industry such as the Northern textile cities of Fall River, Mass., and Manchester, N. H., are now heavily handicapped financially and are making little progress without the momentum of official interest with which New Bedford, similarly situated, has still been able to carry on. In several cities, notably Dayton, the leaders of industry have been also leaders in the movement for planning and civic improvement.

As we point out in Chapter XIV, port planning and city planning

have been kept so largely in separate compartments that the function of cities as ports has not of itself served as a stimulus to comprehensive planning, nor has the coming together of many railroads in a city of itself been a potent cause, although a contributing factor.

Only a few primarily residential cities and towns could be included in the study, but large numbers are known to be very active in zoning and platting control, — like Newton, Mass., White Plains, N. Y., and Highland Park, Ill., — in order that the qualities which make them precious to home owners may be preserved and enhanced.

Several tourist cities are distinguished for planning, — Denver, Los Angeles, and Santa Barbara for visible achievements; and several of the university cities visited, — Boulder, Colo., Lincoln, Neb., Madison, Wis., and Durham, N. C., are relating the university layout in some definite way to the city plan.

Specialization of function is not itself a cause of city planning except as citizens' ears hear squeaks in the machinery or protective eyes fixed on future possibilities suggest remedial or preventive action.

Distinctive architectural character is only just beginning to contribute its share toward initiating city planning. Washington, D. C., and Santa Barbara, each in its own way have been leaders in using planning to augment already precious heritages. As we see in Chapter XVI, other cities with traditional architecture and historic flavor are now beginning to appreciate the fact that uncontrolled growth can make ravages in their individuality and charm which no late awakening can repair.

Closely allied to consciousness of architectural quality, but older, the desire for *preservation of beautiful natural scenery* has been potent and is constantly becoming more so. Expressed in Central Park, New York, it motivated the modern city planning movement; and in dozens of the cities visited it is now expressed by park system plans and reclamation of stream banks and waterfronts. This feeling for scenery finds perhaps closest relation to the whole spirit of the city in Asheville, N. C., Denver, Colorado Springs, and Boulder, Colo., El Paso, Tex., Madison, Wis., Newport, R. I., Los Angeles, San Diego and Santa Barbara, Cal., and the mountain-set cities of the Northwest.

Cities with large *assessed valuations and tax levies* in proportion to population can achieve more actual improvements than cities with a smaller ratio, although specially difficult problems of municipal housekeeping such as Pittsburgh has long encountered have prevented desirable new improvements which the financial situation of the city would

seem to justify. It is continuity of sound, far-sighted municipal administration, and an educated public, rather than the actual tax levy which influence the amount of planning activity which cities think they can afford to undertake. The truth of the matter is, if they only knew it, that the poorer they are the more they need to plan, so that a dollar's worth of present and future good may be secured for every dollar expended on public improvements.

The *social character* of the communities included in the field study offers a most alluring subject of speculation. Is there any relation between literacy or pure white American birth and belief in the value of city planning? We regret to say that some of the cities most homogeneous in population are the most backward in planning: it would be hard to find more stupid conservatism than in the State of Maine. On the other hand in some of the melting pots of the country, — outside of a few cities where dominant political rings are not interested in city planning, — we find the greatest leadership in city planning.

There is one unescapable conclusion, however, which we may draw in regard to the social fabric of the community. Leaving aside the very largest cities where great populations are gathered together in multiple dwellings, *home ownership* appears to be a very strong element in producing city planning activity, when this home ownership is combined with a progressive spirit and represents recent achievement rather than inherited right. A large number of the cities selected for study for other reasons prove to have large percentages of home ownership, many of these homes being single-family houses with their own yards. In Dayton and Grand Rapids, nearly 50 per cent of the dwellings are occupied by their owners, single-family houses predominating over two-family; and there are as yet very few apartment houses. Although this paucity of apartments is exceptional, it is a lesson to those who think and talk in terms of multiple dwellings and big congested cities, that the United States contains many types of developments more wholesome than those which loom large on the metropolitan horizon. It is natural that citizens who own their own homes should care what becomes of the community in which they have a stake. City planning and home ownership may be expected to act and re-act upon each other to increase the general welfare.

High Lights and Low Lights in Planning To-day

Many of the obstacles to planning progress have been embedded in the ultra-conservatism or ignorance of politicians; but the combined

forces of intelligent administrators and provident citizens are putting the stand-patters to rout. In Chapter XVIII, we discuss some of the present stumbling blocks, as a background for future procedure. This darker side of the picture serves to bring into relief the substantial gains already achieved which, as we see in Chapter XVII, can be effectively adduced to prove that "planning pays."

There is much in a bird's-eye view of the status of planning in the United States to-day to encourage us. This book would not be so large if there were not many high lights to illuminate the picture. Some of these are beacon lights: St. Louis, Cincinnati, and Memphis for all-round planning programs in larger cities, and for smaller communities Kenosha, Wis., or Ponca City, Okla.; Chicago and Detroit for magnitude and brilliance of enterprise and for leadership in regional development; Milwaukee and Los Angeles for wise city and county coöperation in producing harmonized plans; Denver and Philadelphia for the visible embodiment of civic pride; Johnstown, Pa., and Dallas for the training of citizens, young and old, in knowledge and support of planning; Pittsburgh and Boston for steady welding of planning into the structure of municipal government; New York for leadership in regional research; Washington for its crystallization of national ideals of dignity and beauty; and many others for high achievement and bold undertakings or patient persistence in day-to-day shaping of the community of the future.

What kind of community this may be, we have ventured to speculate in Chapter XVIII. Whatever the future may hold, the present goals of urban life are coming to be more clearly differentiated and the most promising of them more intelligently sought.

CHAPTER II

THE LEGAL AND ADMINISTRATIVE BACKGROUND

The Background Outlined

ANY substantial progress in the guidance of community development must rest, first, on a firm basis of law and constitutionality, and, second, on the establishment of the planning agency in an efficient relation to local and regional government.

At the present time there is no recent compiled information available on the legal background for city and regional planning, and it was plainly beyond the scope of this field study to undertake such a work, or even to analyze in detail the powers under which the cities selected for study are carrying on planning activities. Such an analytical and critical compilation must be left to the abler pens of Messrs. Edward M. Bassett, Alfred Bettman, and Frank B. Williams, who have already laid the groundwork for a study in numerous papers and periodic reviews. No reference book in the field of city planning is more needed than an up-to-date revision of *The Law of City Planning and Zoning*, by Mr. Williams, published in 1923. Although this book has been supplemented by his annual and quarterly reviews in *City Planning* and more frequent notes in the *American City* and by his annual summaries in the *Municipal Index*, he has not yet made any comprehensive sifting or analysis of the laws and court decisions of the last six years, in themselves or in their relation to earlier planning laws in this country. In addition to a description of the laws and ordinances and judicial decisions, there is needed a qualitative analysis of the law in action — the way it actually works, its possibilities and limitations — and of the trends of the law in its constitutional aspects so far as they relate closely to city and regional planning.

The Division of Building and Housing of the United States Department of Commerce collects and issues annually, in compiled form, information on laws and ordinances relating to zoning, and also has initiated a yearly list of laws relating to city planning. Massachusetts seems to be the only state where a compilation of planning laws has been pre-

pared for the convenience of planning commissions,* although similar publications would be extremely useful to commissions in other states and for general reference, and these will doubtless be prepared when some of the proposed pending legislation is passed. The relevant laws relating to planning have often been given in the appendices to comprehensive plan reports † to indicate what powers exist in the particular state in question, and frequently, comprehensive plans contain drafts of desirable laws. A well classified index to articles, parts of reports, and pamphlets on the legal aspects of planning would furnish a useful addition to the available reference material.

This present chapter can do no more than suggest the skeleton of the legal and administrative background essential to undertaking and carrying out comprehensive city plans. Planning agencies must first be authorized by state enabling act or charter or home rule powers, then provided for by local ordinance; and the plan when prepared should be given legal status. The police power may be invoked to regulate municipal development by zoning, land subdivision and (to a still undecided extent) the establishment of building or street lines. Power of eminent domain must be employed to acquire land and necessary easements, and power of excess condemnation may be secured better to control development surrounding municipal improvements. For accomplishing projects proposed by the plan, there must be adequate powers for financing: taxation, bond issues, and special assessments. Planning and carrying out the plan must be conducted in a legal manner, avoiding "strong arm" methods likely to cause court decisions finding unconstitutionality. If legal powers are inadequate even where voluntary coöperation can temporarily be secured, sufficient and satisfactory legal powers should be sought from the State.

The municipal planning agency should be fitted into the local and regional governmental structure so that a desirable and balanced relation may exist between it and the legislative and administrative organs, and between it and regional or county agencies conducting planning studies or carrying out public improvements. The accomplishment of projects affecting more than one administrative jurisdiction raises problems of regional and governmental structure and organization.

* Massachusetts Federation of Planning Boards, Bulletin No. 20, 1926. The Pennsylvania Bureau of Municipal Affairs (Bulletin CPC 15, 1927) has given references to enabling legislation and some quotations in "Procedure for the Making, Adopting and Enforcement of a City Plan in Pennsylvania Municipalities."

† A notable example was "Akron and its Planning Law" by F. B. Williams, 1919.

All these basic conditions for successful community planning and development are the proper business of the lawyer and the expert in municipal administration, who are now contributing largely to the present movement to secure a comprehensive working background for planning in the several states.

Authorization for Planning Agencies

The composition, organization, and powers desirable for a planning agency are set forth in the Department of Commerce Standard City Planning Enabling Act, issued in March, 1927. This Standard Act was immediately used as a basis for the California Planning Act of 1927 (now revised in the new law of 1929), and for special acts in Maryland (National Capital District) and Pennsylvania (Pittsburgh). Since 1927 the influence of the Standard Act has spread rapidly. Colorado has just passed a bill identical with it except in matters of subdivision control outside city limits. The new Missouri Act (1929) providing for the creation of city plan commissions with specified powers and duties was modeled after the Standard Act. The North Dakota bill was also, through the intermediary of the California Act of 1927, closely modeled after the Standard Act, but, as passed (1929), applied only to villages and cities. The Arkansas Act for cities of the first and second class, recently passed, also follows the Standard Act to a considerable extent, and so does the new Montana Enabling Act (1929) secured by the recently formed State Association of Real Estate Boards, — of particular significance because in 1928 Montana was the only state reported as entirely lacking a city planning or zoning movement.

The Standard Act is being studied in states with older but less comprehensive grants of power for city planning to determine what additional legislation is necessary. The Ohio planning law of 1923 and the series of laws of the State of New York (1926–7) offer exceptionally broad grants of power to communities of all sizes, and these laws directly inspired some of the provisions in the Standard Act. The laws of Pennsylvania also give broad scope for planning. New Jersey, Wisconsin, Connecticut, Illinois, Indiana, Iowa, and Kansas are also states with older laws permitting the establishment of planning agencies. Massachusetts is unique in having made mandatory (1913) * the appointment of planning boards in cities and towns with over 10,000 population, but the powers of these boards fall far short of the powers provided in the

* See comment on page 74.

Standard Act. Texas in 1927 secured powers to make the work of planning commissions effective.

Comprehensive legislation based on the Standard Act is being sought in Kentucky and Utah. Communities in Florida, North Carolina, Georgia, and Tennessee operate under special acts, — a situation which should be improved by the passage of a state-wide act, such as that now sponsored for Tennessee by the Tennessee Municipal League based on the Standard Act, and for North Carolina backed especially by Greensboro.

St. Paul and Detroit are outstanding examples of cities conducting city planning under charter powers. Louisville, which now has only charter powers, is supporting a state-wide enabling act in order to secure planning powers outside the city limits.

The greatest advance of the Standard Act (and the newer laws modeled on it) over early enabling acts lies in the legal status given to the master plan under its provisions. As Mr. Frank Williams has pointed out, "The main reason why planning [as distinguished from zoning] does not make more rapid progress in this country is that the plan has so little authority of law back of it." As yet only a very few city plans — Cincinnati was the pioneer — have legal status in the sense given in the Standard Act. We may look for a new era in city planning accomplishment when full advantage shall be taken of powers granted by the state enabling acts of the last few months.

Control of Municipal Development Through the Police Power

Just as comprehensive legislation for city planning is now being stimulated by the Department of Commerce Standard Act, enabling legislation for zoning has been promoted since 1923 by the Department's Standard State Zoning Enabling Act. By 1928 this model zoning act had been used wholly or largely in zoning laws enacted in some thirty states, including New Jersey, where, following the constitutional amendment of 1927, the zoning act was adopted to supersede a series of acts rendered void by court decisions. Zoning is also covered in the provisions of the Standard City Planning Enabling Act, as part of the comprehensive planning powers granted; and states granting at present only zoning powers — such as Alabama or Arizona — would do well to add the more comprehensive act to the statute books as soon as possible, in order that zoning may be done as a balanced and orderly part of a well rounded scheme of

community development. We discuss in Chapter XI the theory and fundamental bases of zoning as an exercise of the police (or community) power in regulating the uses of land and the volume of buildings thereon for the purpose of promoting health, safety, morals, and the general welfare.

The police power may also be exercised, in controlling the conditions under which people are to live and do business, by the regulation of street-layout and land subdivision in new plats. Platting control within and beyond municipal boundaries forms one of the four main parts of the Standard City Planning Enabling Act. Although some power over plats has been exercised in various forms for over twenty-five years, nevertheless compulsory conformity to a comprehensive city plan, or even a major street plan, and conformity to minimum requirements for lot sizes, spacing of buildings, and street widths, are developments of the last five or six years. The subject of platting control and the regulation of land subdivision is discussed at length in Chapter X. Only a limited number of states, in addition to those which have adopted the Standard Act, grant power of platting control in territory beyond the city limits; and only a few control a five-mile strip, as the Act recommends. A very few control six miles or more, but three miles and even only one mile are found in several state laws. The so-called regional planning act of Oklahoma is largely a means of securing three-mile platting control. Michigan permits cities to make a thoroughfare plan for three miles outside the city limits, but not to control subdivision in that strip. County coöperation, however, has effected practical control in the Detroit region. County control of subdivisions by planning agencies is legal and effective, notably in Los Angeles, Cal., Milwaukee, Wis., Glynn County, Ga., and Wayne County, Mich.

Under the police power, public health and safety may also be promoted by setback building lines, which are discussed in this book in Chapter XI as these form part of yard requirements in zoning, in Chapter X as a requirement for plat approval, and also in Chapter XII as related to future street widenings. Where building lines are specifically authorized by state acts, these usually take the form of eminent domain easements, as for instance in Minnesota; or provision for building lines appears as part of enabling acts covering city planning and zoning, as in Wisconsin.

Setback building lines are not included or discussed in either of the Department of Commerce Standard Acts as such, except as they may be

presumed to be covered by front yards under zoning and by mapped street lines under official street plans.

The protection of the city plan by the prevention of buildings in mapped streets under the police power has recently been made legal in the State of New York; and this method of preserving the integrity of the city plan, usually called the "New York Method," is noted and discussed in the Standard City Planning Enabling Act as a substitute or alternative to the eminent domain or "Massachusetts Plan" which is given preference in the main text. In Pennsylvania the police power method of preserving mapped streets has long been operative, but in specific instances (see Sansom Street case, Caplan's Appeal) the operation of this power has been held unreasonable, even though the principle has been upheld. In the State of New York, however, the recent law appears to be satisfactory, and running smoothly where adopted. Its operation in conjunction with comprehensive planning in New York communities will be watched with the closest attention for its influence on developing practicable economic and legal methods of preserving the integrity of street plans, and for its exemplification of the possibilities of the police power in this phase of planning.

Eminent Domain Methods for Carrying Out City Plans

The land needed for public improvements, whether or not in accordance with comprehensive plans, must be acquired by the city through exercise of the power of eminent domain, if the land cannot be obtained through purchase, gift, or dedication.

When land is not needed for immediate use by the city but is known to be needed for some future use, the city may acquire an easement under eminent domain. The method of preserving the integrity of the city plan adopted in the Standard Act, as we have already stated, is this eminent domain method, or substantially the "Massachusetts Plan." Unless aggrieved parties file claims for damages within the time stated, no compensation may be awarded; and after the easements are settled, no compensation for buildings in reserved street locations may be claimed at the future time when the land for the street is finally condemned. The bill to make this method part of the planning law in Massachusetts has recently again failed to pass. Many states have older statutes providing for the acquisition of street lines by some mode of eminent domain, — that is, with money compensation to the property owners, — but few of these are much employed in actual practice. In the North

Dakota Act of 1929, the economy of the method of the Standard Act seems to have been destroyed by the elimination of the provision "no compensation for buildings."

Excess condemnation, frequently employed in Europe, has long been discussed in America as a means for facilitating planned improvements, for controlling the surrounding development, and for securing to the community the increment of value arising out of the public's investment in public improvements. The whole subject has been ably treated by Mr. Williams in his book and, in conjunction with others, in the *Proceedings of the American Society of Civil Engineers.**

Although for many years some form of excess condemnation has been authorized by constitutional amendment in Massachusetts, Ohio, Rhode Island, Wisconsin, and New York, and by laws without a preliminary constitutional amendment in Illinois, New Jersey, Virginia, Connecticut, and Maryland, until recently very little use has been made of this power. Some examples of its use are discussed in Chapter VIII. In the past year, California and Michigan have succeeded in securing constitutional amendments for excess condemnation, but the proposed amendment for this purpose in Colorado was defeated. There are great possibilities in excess condemnation for controlling the type of development and for preventing unsightly remnants from bordering expensive projects, even if the possibilities of financial gain in America are less promising than in Europe.

Powers for Financing Plan Improvements

In Chapter VII, "Financial Programs," we discuss in some detail certain financial limitations hindering the execution of plans. Limitations and opportunities are determined by the powers which the state grants to communities for raising money by taxation, by issuance of bonds, and by special assessments on benefited property. As we have just seen, power of excess condemnation is regarded less as a measure of financing than of control.

Planned improvements may be paid for in all the usual ways by which municipalities have been financing unrelated public improvements. Special taxing powers may be granted for planning purposes, such as the tax of one mill on the dollar of North Dakota, just passed, and the tax of 3 to 8 mills on $100 of Indiana, or the tax of 3 cents on $100 for adminis-

* Sept.–Dec., 1925, containing papers contributed to symposium on use of excess condemnation in city planning.

tration and planning in addition to a 7-cent tax for acquisition and improvement in the Maryland-National Capital District. More commonly the general taxing power of the city, county, or metropolitan district is relied on.

Powers for issuing bonds are bound up in limitations as to total municipal indebtedness and as to purposes for which the money thus raised may be used. Although special grants of power to issue bonds in excess of debt limits are occasionally secured (as for instance by Rochester, N. Y., for local improvements assessed on benefited property), debt limits must usually be adhered to, or raised in the general state law. A scientific study of debt limits in relation to present financial status of our cities, taking into account the long-term program of improvements predicated by a city plan, would reveal whether in general our cities are wisely being prevented from laying too heavy a burden on a future generation, or whether the present generation is made to pay too liberally or else forced to refrain from undertaking needed permanent improvements.

Powers for levying special assessments on benefited property as a means of paying for city plan improvements have been exercised with distinguished success in Missouri, as illustrated in Kansas City and St. Louis. Some states lack this power or have it in so restricted a form that it does not aid substantially in financing improvements. In California the mass of enabling legislation — culminating in the Mattoon Act — is so complicated that a concerted attempt is being made to simplify and make it workable. In the Appendix will be found some comments on special assessments made in a number of the cities visited.

Influence of Court Decisions on Planning

In *The Law of City Planning and Zoning*, by Mr. F. B. Williams, we have a record of the earlier court decisions which acted as signposts to wisely cautious planners proceeding along the path of constitutionality. The great landmark in planning history is the Euclid Village decision, in which the Supreme Court of the United States established the constitutionality of comprehensive zoning, and crystallized the progressive attitude of state courts in Massachusetts, New York, Wisconsin, and Minnesota toward the control of community development by the community power.

The Supreme Court of the United States has further upheld zoning in a series of cases; and the favorable decisions of state courts are too

numerous for mention here. In general it may be stated that the validity of zoning, as an exercise of community legislative power, is established, leaving open for decision in individual cases only the interpretation of specific statutes or ordinances or the reasonableness of particular regulations when applied to particular situations.

The validity of contemporary subdivision regulation has been upheld in the recent cases of Ridgefield Land Co. *vs.* Detroit (217 N. W. Rep. 58) and Prudential Realty Co. *vs.* Youngstown (118 O. S. 204).

The carefulness, thoroughness, genuineness, and comprehensiveness with which the planning is done have been accepted by the courts as elements in the validity of the plan when applied to private property in zoning measures or subdivision regulations, and the unfavorable decisions have resulted from the absence of those qualities in the particular case before the court and not from any basic constitutional limitations.

Unfavorable court decisions have damaged but not checked local planning and zoning progress in Baltimore, and they served to promote the securing of new adequate powers from the state in Texas, Missouri, Georgia, and New Jersey. Court decisions point out the weaknesses and the strength of the legal and constitutional bases of city planning, and thereby indicate what loopholes must be stopped and conversely embolden hesitating communities to proceed on approved ways.

Present Legal Obstacles to Planning Progress

The most substantial obstacles now standing in the way of communities which may desire to undertake planning are insufficient or unsatisfactory legal powers for creating planning agencies, for regulating the development of private property, and for adequate financing of planned improvements.

Except in those cities where individual initiative has been strong enough to circumvent apparent obstacles by temporary or alternative methods, planning progress has waited on the stimulus and backing of adequate legislation. Usually legislation has been secured either by a few leaders from cities which have experimented with planning and encountered the obstacles in defective legal powers, or by some state association conscious of lacking powers exercised elsewhere with beneficial effects.

The reader will find through the pages of this book certain specific lacks or inadequacies reported in the course of the field study. Typical of these are: the need for power of excess condemnation sought by

Denver, Portland, Ore., and Jacksonville, Fla.; lack of authorization for benefit assessments reported as hindering improvements in Wilmington, Del.; too restricted special assessment laws reported by a number of cities, in Pennsylvania, the District of Columbia, Ohio, Virginia, Tennessee, and Utah; lack of power to control plats outside of the city limits, reported by Providence; * inadequate methods of acquiring land for street widenings reported by Topeka, Kan.; lack of authorization for issuance of bonds for street openings and widenings hindering progress in Oklahoma City; inability of the city plan to control constructions by non-municipal agencies reported by Cincinnati; need for the protection of mapped streets felt by cities in Massachusetts; lack of enabling legislation for an art commission, reported by Providence, the capital of Rhode Island.

A detailed study of existing legislation suggested in the opening of this chapter would act as a measuring rod for communities of the several states in determining what laws they lack and should secure.

Forms of Municipal Government in Relation to Planning Activity

City planning has not been a part of the regular business of municipal administration long enough to determine what form of city government is most favorable to planning or to accomplishing planned improvements. Many more of the cities visited have the mayor-council form than either the commission or the city-manager† form. There are examples equally distinguished for planning activity to be found in each group: Denver, Detroit, Evansville, Los Angeles, Milwaukee, Minneapolis, Pittsburgh, Providence, or St. Louis, among mayor-council cities; Asheville, Dayton, Houston, Dallas, El Paso, Johnstown, Memphis, New Orleans, St. Paul, among the smaller number of cities governed by commission; and Cincinnati, Knoxville, Kenosha, Wichita, Oklahoma City, Forth Worth, and Sacramento, among about the same number having city managers.

An expressed opinion, probably justified by the theory of the greater efficiency of the manager-council form, that city planning progress is more marked in manager cities, scarcely seems to be supported by the field study.‡ In addition to the score of manager cities studied, there are about twenty-five cities with city managers reported as engaged in

* During the field study Wichita and St. Louis both reported lack of previous platting control outside city limits, but each has since secured enabling legislation (1929) for this.

† Council-manager is the term most commonly used, largely superseding the term commission-manager.

‡ But cf. comment on p. 43.

some kind of city planning activity; but, as far as we can find, no larger proportion of manager cities have planning agencies than cities with the mayor-council form or the now less popular commission form of government. In two of the cities having the commission form of government substantial difficulties were reported arising from the independent position occupied by the commissioners who failed to correlate their work or coöperate for planning purposes. We should like to have included in the Appendix notes as to the form of municipal government of the cities having planning commissions listed by the Department of Commerce, but it was impossible to secure complete and accurate information. The facts as far as obtained merely bore out the observations we have just made. Individual and group leadership can be held more responsible for progress so far than any governmental mould.

Municipal Planning Agencies in the Governmental Structure

The fundamental theory of the planning commission as a part of the governmental structure has been ably stated by Mr. Bettman in a paper before the National Conference on City Planning, 1928, entitled "The Relationship of the Functions and Powers of the City Planning Commission to the Legislative, Executive and Administrative Departments of City Government." In this paper, he points out that the planning function is distinct from either legislation or administration, although legislative and administrative officials should be represented in the planning commission; that the commission should have its own staff and appropriation for expenses; that it should have power to adopt the city plan and to recommend to the city council what course of action should be taken on proposed departures from the plan, — planning commission recommendations to be overruled only by a two-thirds vote of the legislative body.

How planning commissions and departments are constituted and functioning in the cities visited during the field study is discussed in the next chapter. Many cities fall short of the desiderata set forth by Mr. Bettman, but in a few, notably Cincinnati and Toledo, the recommended relationship may be studied in action.

In Mr. Bettman's paper it is suggested that laws specifying the power and jurisdiction of planning commissions should cover public constructions which do not fall within the jurisdiction of the municipal officials, — such as county, state, or federal buildings, county or state highways within the city, or certain utilities under the jurisdiction of public utility

commissions. This has been covered in the Department of Commerce Standard Act.

In the undeveloped area outside the city, there is opportunity for a constructive relationship between the city planning commission and the county (or other regional) government. Where no county or regional planning agency exists the planning commission may, for instance, pass on new plats at the request of the county engineer (as Des Moines for Polk County); or if there is also a county planning agency, close coöperation may exist between it and the city planning commission, as in Los Angeles, Detroit, Milwaukee, St. Paul, Toledo, and Chicago.

Governmental Problems in Carrying Out Regional Plans

Regional planning and the extension of city plans beyond municipal boundaries have been looked upon askance by some smaller communities on the edges of large cities. The small towns, desiring to retain their political identity, fear that regional plans may be the first step toward annexation. Regional planning is entirely possible without annexation, and the carrying out of regional plans, as we see in Chapter IV, may be accomplished by coöperation of all the authorities concerned, as in the regions of Chicago and Los Angeles. Indeed in many communities regional planning has served to remove the fear of annexation by indicating other methods of bringing about common projects and common action.

On the other hand, when little community individuality has been developed in the area bordering city territory, the outside pressure for annexation may be strong. Many planning problems have arisen through premature annexations, burdening municipalities with disproportionate expenditure for developing unripe land. Economic studies are now made in Detroit to determine the advisability of proposed annexations. If power for platting control beyond municipal boundaries, recommended in the Department of Commerce Standard City Planning Act, may be exercised, or if strong city-county coöperation exists, the problem of annexation becomes largely one of government rather than one vitally affecting programs of public improvements and articulation of plans.

When a group of highly developed communities in one state,* having in common complicated planning problems, seek to solve these in some more organized fashion than through voluntary regional coöperation,

* The governmental possibilities when the communities forming a region lie in more than one state — as the regions of New York, Philadelphia, and Chicago — are now the subject of speculation.

the creation of some form of super-government, having jurisdiction over matters of common concern, becomes a possibility. The San Francisco-San Mateo Survey, recently compiled by the San Francisco Bureau of Governmental Research for the Chamber of Commerce, analyzes the common needs and problems of the whole peninsula and recommends that a form of consolidated government, not annexation, be authorized by state constitutional amendment, in which boroughs control local affairs and a city-county authority performs all county or centralized functions. The proposed Federated City of Pittsburgh, — if this form of municipal consolidation in Allegheny County be finally effected, — will offer an example of metropolitan government with municipal home rule. The Boston Metropolitan District is our historic example of a metropolitan authority, created to provide and administer sewerage, water, and parks, but in Canada similar powers have been exercised by the Essex Border Utilities Commission, which has authority to deal with regional problems and deserves especial study. We have yet to see in the United States a completely studied and successful experiment in the unified administration of an urban region reasonably demarcated from the point of view of comprehensive planning.

CHAPTER III

MUNICIPAL PLANNING COMMISSIONS AND DEPARTMENTS

Variety of Name

THERE is no standard form of name for a municipal planning agency. Varying with the wording of state enabling acts and with local preferences, it is called "City Planning Commission," "City Plan Commission," "City (or Town) Planning Board" (this largely in Massachusetts), occasionally "City Planning and Zoning Commission" or "Planning and Parks Commission." In Salt Lake City, the so-called "Zoning Commission" has city planning functions. In some cases the word "city" is not used in the official title, and we find "The Planning Board" or "Planning Commission" alone employed on letterheads. If there is any preponderance of custom in the larger cities, this favors "City Plan*ning* Commission." Usually where there is a regular department or division of the city government, this is named in addition to the board or commission, but in Grand Rapids the department and commission are included in the title "City Planning Department." The variety of titles of planning agencies used in the cities included in the field study — scarcely a fifth of all the commissions in the country — may be seen from the list given in the Appendix. It would greatly facilitate accuracy of address if some more standard form, at least uniform in each state, could be agreed upon and adopted! For the purposes of this book we are choosing the most commonly used, namely, city planning commission, which is also the term used in the Department of Commerce Standard City Planning Enabling Act.*

Appointment and Composition of Commission

The most commonly accepted method of appointing planning commissions is selection by the mayor — rarely the city manager — with approval of council. In a score of the cities studied, approval of the

* The very full discussions of desirable personnel and powers of commissions in the Notes to this Act should be read with care.

legislative body was not required; in more than a dozen, planning commissions were appointed directly by the legislative body. The method of appointing commissions recommended by the Standard Act, which includes one member of the council selected by it, obtains in some cities, as in Cincinnati and New Haven, but has not yet become the rule. In Denver the original commission appointed by the mayor was incorporated and has since filled vacancies by election, thus becoming a self-perpetuating body. There appears to be no observed relation between planning progress and the appointing authority.

Setting aside for a moment consideration of ex-officio membership of planning commissions which the Standard Act recommends and which exists in the majority of cases, we find that the selection of citizen members of commissions is almost entirely at the discretion of the appointing authority. In harmony with the Standard Act, few ordinances limit the interests to be represented on the commission. Detroit is a notable exception: there the occupations of seven out of the nine members are specified in the city charter, as civil engineer, structural engineer, builder, architect, lawyer, doctor, and realtor. At present the other two members are a merchant and a banker. While this system of required professional representation is felt in Detroit to work out very satisfactorily, since there are many in each profession to choose from, it is of doubtful value in a smaller city, and warning against it is distinctly given in the comments of the Standard Act. In Buffalo a more general type of prescription appears in the city charter, calling for the inclusion always of "some members especially qualified by business contacts to advise with respect to the needs and the development of the port." In New Bedford, planning board membership is specified by ordinance to include only city officials (from board of health and park board, and superintendent of streets, and city engineer) and members of council, — usually elsewhere added as ex-officio to a larger group of citizen members. This exceptional method is reported satisfactory in that particular city.

In a few cities a political method of selection is employed which could scarcely be expected generally to produce efficient results: in Little Rock, Ark., one member is appointed by each of the eighteen ward councilmen who represent nine wards, in addition to seven members appointed by the mayor. In Manchester, N. H., one citizen from each of thirteen wards is customarily appointed, together with four ex-officio members. While in many cities the mayor undoubtedly weighs in his mind the representation on the planning commission of various civic and business

organizations, in Seattle — where the size of the commission is unusually large — the mayor appoints on actual nomination by the organizations selected. This practice is perhaps more customary for large advisory councils or semi-official committees, as in Jacksonville, Fla., than for the usual type of working planning agency.

It is of decided interest to note the enormous variety of occupations represented on the planning commissions of a hundred or more cities. Realtors lead in numbers, followed by architects, engineers, lawyers, bankers, manufacturers, and retail merchants. Clubwomen are well represented, but chambers of commerce in the cities studied were seldom represented as such. Contractors, corporation officials, wholesalers, and insurance men appear frequently; educators, journalists, doctors, ministers, and landscape architects less frequently, the last-named undoubtedly because so large a proportion are engaged in professional city planning work. In general it is quite apparent that an intelligent effort is usually made to represent on the planning commission those interests dominant in the business and civic life of the community and likely to be active in promoting development along up-to-date lines.

In the Standard City Planning Enabling Act, 6 is the number of citizen members recommended for a planning commission, plus 3 ex-officio: the mayor, one administrative official, and one member of the council. The examination of field study returns and of the tabulated statistics of planning commissions in the United States, furnished by the Division of Building and Housing of the United States Department of Commerce, shows that 5 is the most common number of appointed members, although the variation runs all the way from 1 in Baltimore to 264 in Chicago, while ex-officio members vary in number from 1, in several cities in Ohio and elsewhere, to 8 in San Francisco, 11 in St. Paul, and 64 in Chicago. Only a small number of the commissions studied contained more ex-officio than appointed members: thus we see that, in general, practice is conforming to approved theory that appointed members should constitute a majority.

It is practically impossible to draw any conclusion as to the effect of size of commission on actual achieved results. Chicago (328) and Denver (43) with their very large commissions are outstanding examples of accomplishment, but in both there is a smaller strong executive committee which is the functioning body. Seattle (21) has not made much progress, except through port development, in carrying out a comprehensive plan. Memphis (12) is in the successful class with Chicago and

Denver, and so, too, Milwaukee where there are only 3 appointed plan commissioners. In both Des Moines (15) and Manchester, N. H. (17), the number of members is considered too large. Springfield, Mass., and Sacramento, both very active in planning, have exactly the number recommended in the Standard Act.

A comparatively small number of appointed commissioners serve the six-year term of the Standard Act. At present, terms of three, four, and five years are much more common. In very few cities are there one-year terms, but in several there are seven-year terms, as in Dayton, Houston, Madison, Wis., and Spokane, while in New Orleans, the term is ten years. The exceptionally organized planning bodies of Chicago and Denver and a considerable number of other commissions have indefinite terms, probably a far less desirable situation for the commission of normal size and character.

A small minority of cities have no provision for overlapping terms: the need for continuity of guidance in developing city plans is clearly recognized in the great majority. The Standard Act provides for this by initiating the commission of six with the appointment of all but one member for terms respectively of one, two, three, four, and five years.

The opinion is sometimes expressed that in spite of the obvious advantages of continuity in the work of a planning commission, the political deadlock which sometimes occurs between a new mayor and a commission left over from a previous administration defeats the purposes for which planning commissions are formed. It is our opinion that these complete deadlocks are relatively infrequent and more apt to occur during the ascendancy of an undesirable type of municipal administration, so that it is better for a city to suffer a hiatus in planning than to have the wrong kind of guide forced upon it.

Appointed city planning commissioners serve practically always without pay, again as recommended in the Standard Act; in fact, as there pointed out, payment has so far proved unnecessary to secure the high type of citizen services required. In Baltimore until several years ago the one appointed member of the City Plan Committee, usually an architect, was paid a salary of $2500 yearly, but this practice was discontinued. Each member of the Board of City Planning Commissioners of Los Angeles (5 members) receives $5 per meeting with a maximum of $60 per month. In the Milwaukee planning body (Board of Public Land Commissioners), the member who acts as secretary receives an annual salary. Of course the larger number of active planning com-

missions employ a director or executive secretary or planning engineer who receives a regular salary, but in these cases the recipient is not counted as a member. The Maryland-National Capital Park and Planning Commission — one of the most active official regional planning agencies — allows a salary of $3000 to its chairman and $500 annually to each of the other five commissioners. In the set-up proposed for the planning commission of the City of New York, two highly paid appointed commissioners (added to the Chief Engineer of the Board of Estimate and Apportionment) are provided for, in view of the exceptional abilities required and the great amount of time expected to be consumed in hearings and public relations.

The choice of municipal officials selected to serve as ex-officio members of planning commissions varies considerably with circumstances. Usually it is desirable that the mayor or city manager should be an ex-officio member and frequently it was found in the cities visited during the field study that the mayor's interest in planning was active and intelligent, as for instance in Asheville, N. C., and Salt Lake City. Scarcely more than a quarter of the cities studied, nevertheless, had the mayor or the city manager on the planning commission. In about the same number of cities a representative of the council appeared as an ex-officio member, although the importance of having on the commission a liaison officer from the municipal legislative body cannot be overstated. In only about one-half of the cities visited was the city engineer or commissioner of public works an ex-officio member. The other officials noted were chiefly representatives of park and recreation boards and city attorneys, although building commissioners, health officers, and members of boards of education were also found. In two cities a member of the board of zoning adjustment was an ex-officio member of the city planning commission, but this reciprocal relationship is found to be more commonly taken care of by having a member of the city planning commission sit on the zoning board. In several cities the director or commissioner of public service was an ex-officio member of the planning commission. The following were found on planning commissions in only one instance each: city architect, city auditor, city comptroller, superintendent of buildings, and superintendent of police.

The active participation of ex-officio members in the work of planning commissions was found to vary according to different political situations and the different offices represented. In Asheville and Raleigh, N. C., and Chattanooga, Tenn., the mayor was reported as always present at

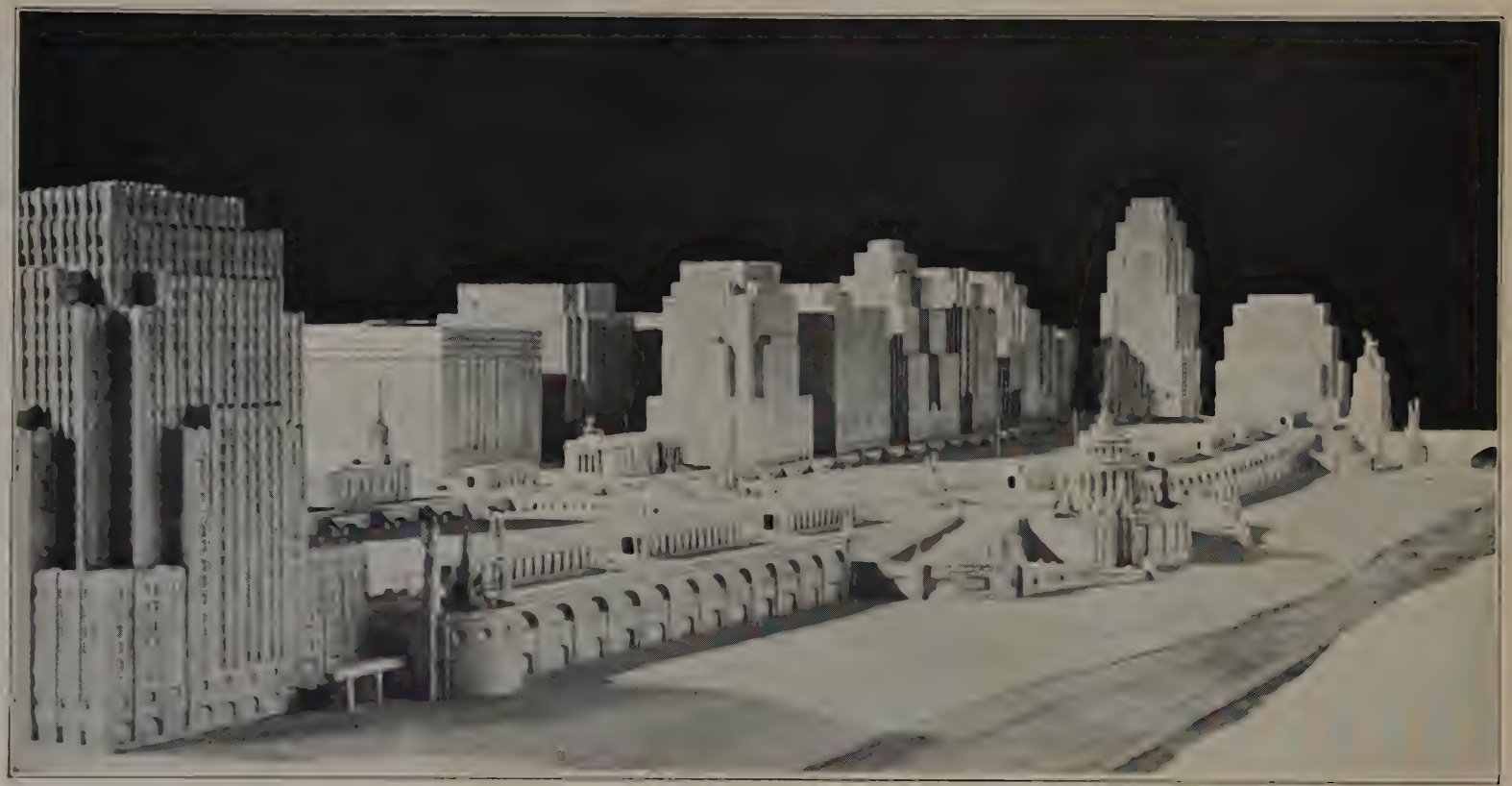
planning commission meetings; but in Atlanta, Ga., Spokane, Wash., and Canton, O., the mayor was reported seldom present. In Knoxville and Memphis, Tenn., Oklahoma City and Tulsa, New Haven, and Salt Lake City, ex-officio participation in planning commission meetings is very active. In some cities where the city engineer is an ex-officio member, this connection facilitates the use of his office for planning commission studies where no regular separate city planning department exists.

Functions, Powers, and Activity

Weekly meetings of planning commissions are held in more than a dozen of the cities visited, including Cincinnati, Detroit, Milwaukee, Los Angeles, Oakland, Oklahoma City, Pittsburgh, Rochester, and San Diego; in Springfield, Mass., the average is even more than once a week. Almost a score of cities had fortnightly or bi-monthly meetings, as for instance, Akron, Cleveland, Dallas, Grand Rapids, Johnstown, Pa., Madison, Wis., Memphis, Minneapolis, and Tulsa. In practically all of these cities, as might be expected, planning is very active, but attendance at these frequent meetings varies widely. In Los Angeles where commissioners are paid for attending weekly meetings, attendance is excellent, but so is it also in Cincinnati, Oklahoma City, Omaha, and Rochester, where they are not paid. In Pittsburgh and Springfield, however, also with unpaid commissioners, attendance is only fair. It would appear that in cities active enough to require weekly meetings, the percentage of attendance averages higher than in cities where less frequent meetings occur.

In the Standard Act meetings "at least monthly" are specified, and in the cities visited monthly meetings are found to be the most common. Among active cities holding well-attended meetings once a month are Altoona, Pa., Kenosha, Wis., Knoxville, Tenn., and Wichita, Kan. In a number of cities where meetings are held only on call, it was observed that planning is relatively inactive. In contrast, several commissions, as in Ponca City, Okla., and Denver, where planning is a live and popular issue, meet only infrequently, but in these two cases it should be noted that city planning has thoroughly penetrated all departments of municipal government. It also appears that with the too-large commission, poor attendance is apt to result, which is unfortunate for those cities, as for example, Manchester, N. H., where planning is an issue not well understood.

Very few city planning commissions have more than advisory powers.



Photograph by Papin

Victor Berlendis, Architectural Sculptor

PROPOSED CENTRAL RIVERFRONT DEVELOPMENT, SAINT LOUIS

City Plan Commission Harland Bartholomew, Engineer E. J. Russell, Chairman William D. Crowell, Architectural Consultant

A PLANNING COMMISSION AT WORK

In some cities and towns the commission investigates only matters referred to it by council or the board of selectmen; in others, planning projects must be submitted by council for planning commission consideration. In some cities initiative is expected to be taken by the planning commission in introducing projects for legislative action. In no cities studied have there been found any executive powers in construction of planning projects except in the special cases of the Syracuse Planning, Parks and Recreation Commission, the National Capital Park and Planning Commission, and the Maryland-National Capital Park and Planning Commission, all of which partake of the nature of park commissions.

The desirable functions and powers of a city planning commission are nowhere better stated than in the Standard Act, which stresses the duty of the commission to prepare a comprehensive or "master plan for the physical development of the municipality," based on careful and comprehensive surveys of present conditions and future growth, and to adopt this plan as a whole or in successive parts, after public hearings, which adoption would give legal status to the plan. As already noted in Chapter II, such powers have been granted to planning commissions in very few states. The planning commissions of Cincinnati, Detroit, and Schenectady appear to be exercising more powers in carrying out master plans than any other cities studied. In Indianapolis and Pittsburgh the commission's master plan powers are expressed in officially adopted major street plans.

The most definite powers of the planning commissions observed are in the field of subdivision or plat control. As will be seen in Chapter X, the approval of the planning commission is required for the filing of plats in practically all cities which attempt to control new development within or near municipal boundaries. In Akron and Detroit, planning commission approval is required for acquisition of property for parks and recreational purposes. In Rochester, no ordinance for street improvements may be passed without a report from the planning commission. In a number of cities, as Cleveland, Detroit, Indianapolis, Memphis, Evansville and Fort Wayne, Ind., and Kenosha, Wis., the planning commission has an art commission function, although this is not considered desirable to include among the duties assigned to planning commissions as conceived in the Standard Act. Approval by the planning commission of zoning amendments before passage by the city council should be more universally required than it appears to be at the present time. In Duluth and Des Moines, a four-fifths vote of council, in Cincinnati and

Los Angeles a two-thirds vote, for zoning amendments is necessary to override planning commission disapproval.

In a considerable and growing number of cities where it is not obligatory for the city council or commission, as in Cincinnati and Dayton, to submit proposals of a planning nature to the planning commission, it is customary to do so; and without explicit powers of enforcement, the planning commissions of such cities as Memphis and St. Paul succeed in having plan commission recommendations generally adopted.

The actual scope of planning commission activity runs all the way from the practically full range suggested in the Standard Act — best exemplified perhaps in Cincinnati — to complete inertia — as in some of the cities and towns of Massachusetts where boards have been created merely to comply with the law — or to activity in preparing a zoning ordinance alone without apparent reference to comprehensive considerations.

The zoning function of planning commissions is one of the most generally recognized, as implied by the name used in a few cities like New Orleans. If a city has no zoning ordinance, the planning commission is usually charged with the duty of preparing this, although in a few cases, a temporary separate zoning commission has been specially created in addition to the planning commission, as in Chicago and now in Baltimore; or the zoning commission may consist of the members of the planning commission plus certain city officials, as in Roanoke, Va. In Des Moines and Harrisburg the planning and zoning commissions are theoretically separate bodies but with identical personnel. During the field study, it was found that the planning commission seldom acts as a board of zoning appeals, as does the zoning committee of the City Planning Board of St. Paul, — a situation which might work in the case of a large board, such as St. Paul's, but which would be apt to swamp a small commission with so many petty details that larger views of guiding future growth might readily be obscured. Although in various smaller towns throughout the country zoning is still considered an isolated function, in only a few of the cities studied were zoning commissions found where no planning commission existed, indicating the desirable trend toward making zoning a related phase of general planning. In one of these few cities, Tacoma, a planning commission has just been organized; in Salt Lake City, the present zoning commission represents a change of powers from the advisory planning commission established fifteen years ago, presumably because Utah has an enabling act only for zoning. In

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Laramie in Wyoming the original zoning commission appointed in 1923 has now become the Laramie Planning Commission. In Seattle the present city planning commission grew directly out of the earlier zoning body. In Birmingham the temporary zoning commission became the board of adjustment, instead of developing into the planning commission which the city lacks.

In view of the increasing pressure of traffic congestion and the administrative problems involved in directing and regulating traffic, there is apparently a growing tendency not to charge the city planning commission with the study and solution of these, but to erect a separate traffic commission or committee — official or unofficial — which frequently continues after a specific report has been made or traffic code recommended. In Oklahoma City, the official traffic commission and city planning commission voluntarily coöperate through an interlocking membership. In Detroit the traffic division of the police department makes studies and reports, in close coöperation with the planning commission. In Pittsburgh there is a Bureau of Traffic Planning under the Department of Public Safety. In several cities, as in Memphis, there are branches of the National Safety Council which make traffic surveys and advise unofficially on traffic control. In San Francisco and Oakland there are strong unofficial committees which have directed and authorized, as basic to improvement of traffic conditions, major street planning studies ordinarily prepared at the instance of city planning commissions. In Kansas City, Mo., the official Trafficway Commission, erected to control and finance traffic streets in a similar way to parks, and composed of the chairman of the city planning commission, director of public works, and president of the park board, has duties apparently almost the same as those of the planning commission, resulting in a conflict of powers and duties in spite of coöperation.

Normally city planning commissions employing skilled technical advisers in the preparation of comprehensive plans have traffic studies made in connection with the major street plan which usually forms an early part of the planning program. As we see in Chapter XII, in large cities such as Los Angeles, San Francisco, Chicago, New Orleans, Boston, and Providence, where traffic problems have been unusually acute, the studies for relief have been separately made — for unofficial agencies in the first three cases and for official bodies in the latter three — but excellent coöperation has existed between planning and traffic regulation authorities; in fact, in Boston the special traffic studies are being exten-

sively used in the preparation of the thoroughfare plan by city planning commission advisers.

As may be seen from a careful perusal of the traffic survey volumes for several of the cities just mentioned, prepared by the Erskine Bureau of Harvard University, the need of continuing study and direction of traffic regulation makes it imperative for large cities to have a separate traffic commission, and the plan commission should be charged only with the collection and interpretation of traffic facts which have a direct bearing on physical planning.

Cities and towns which have planning commissions but no regular planning departments within their municipal organizations usually make some appropriation for planning work. Frequently, as in Johnstown, Pa., there is a paid secretary but the technical assistance is drawn from the department of engineering. In a number of cases, as Asheville, N. C., Madison, Wis., El Paso, Tex., Hartford and New Haven, Conn., and New Bedford, Mass., the city engineer acts as secretary of the planning commission, with or without special remuneration, and all the work is done either in his office or by an outside consultant. Naturally cities which maintain no regular city planning office apportion in their budgets less earmarked amounts for planning than those cities which employ designated planning staffs, although amounts appropriated for employment of consultant services by planning commissions may run larger.

Planning Departments

If the city is large enough and therefore faced with the ordinary amount of planning work entailed in present-day growing communities, there is little doubt that the organization of a city planning department as an integral part of the municipal government gives to the city planning commission an assured position as well as a working tool for accomplishing a definite program. It is important that this department or bureau should bear a proper and defined relation to the engineering department, or department of public works, in order that friction and jealousy may not obstruct the carrying out of desirable municipal improvements. In Baltimore the Bureau of Plans and Surveys is a part of the department of public works, and similarly are the Bureau of City Plan in White Plains, N. Y., the Division of Survey and City Planning in Greensboro, N. C., and the Bureau of Design and Construction in Rochester, N. Y.; in Altoona, Pa., the planning department appears in the bureau of engineering. The great majority of cities having plan-

ning departments, however, report these as separate entities, coöperating and frequently drawing technical assistance from engineering departments, but not subordinate units within these.

Commonly used titles for the executive officer of a municipal planning department are "planning engineer," "engineer-secretary" or "secretary-engineer," "city plan engineer," "city planner and secretary," "director" or "manager," or merely "engineer" alone or "secretary" alone. This secretary-engineer needs both executive and professional qualifications: as the recent White Plains report puts it, he should be a diplomat as well as a technician. Engineers, draftsmen, and stenographers usually make up the staff, with occasionally an architect, landscape architect, lawyer, or chauffeur. Large cities such as Chicago, St. Louis, Pittsburgh, and Washington, where large separate offices are maintained, naturally have a more highly specialized staff than the usual force for a smaller city, which often consists of one or two assistants and a stenographer, or perhaps only secretarial assistance, with details of drafting done in the city engineer's office or some other city department. The variety of size and organization of city planning departments in larger and smaller cities may be gathered from examining the tabulated information in the Appendix, furnished by the departments visited.

Ten or so of the cities studied are making annual appropriations of over $20,000 for city planning work. The highest recorded was Pittsburgh, where special topographical work is in progress and where the staff consists of fifty-six persons, covered by an appropriation of $121,000. Chicago with $90,000, Detroit with $59,000, and Los Angeles with $40,000 are the next highest in order. Cincinnati, Rochester, and St. Louis average over $20,000, with Cleveland, Boston, and Buffalo around $30,000. Atlanta, Houston, Indianapolis, and Minneapolis have appropriations from $15,000 to $20,000; Akron, Altoona, Denver, Evansville, Kansas City, Mo., Portland, Ore., San Diego, and Syracuse, from $10,000 to $15,000. A larger number have appropriations ranging from $5000 to $10,000, but in several of these cities and in those few studied where appropriations were less than $5000, additional technical work is done by the city engineer's office. In Baltimore, Rochester, and Seattle appropriation for city planning work is not segregated in the city budget. The work of the National Capital Park and Planning Commission is provided for by appropriations made by the Congress of the United States.

For a city not in the metropolitan class and with a master plan already

prepared by skilled technical advisers, it appears to be possible to operate a city planning department for something like $15,000 a year, if the proper coöperation is secured from other city departments. This sum, considered as the interest at 5 per cent on $300,000, shows how relatively small an annual saving in construction and operation of municipal improvements need be made to justify the employment of foresight in their design as secured through a continuous agency for comprehensive planning.

In smaller communities there need not be apprehension of prohibitive expenditure or disproportionate allotment of funds through creating a separate planning department. As already pointed out, a well-organized planning commission operating in harmony with the town engineer and empowered to engage consulting services, may secure the same type of information and the same opportunity for results which large cities must ensure by a continuing city planning department.

In the approximately fifty cities studied which are considered to have regular planning departments of the city government, few instances were reported of obstructionist tactics on the part of other city departments. The offices of city engineers, as already indicated, contribute largely to the preparation of planning studies. Coöperation with building inspectors, construction departments, park departments, waterworks departments, tax assessors, harbor commissions, boards of education, and fire commissioners were all specifically mentioned. The cordial recognition of the value of comprehensive city planning by all kinds of technical men, in their national organizations and journals, augurs well for closer and closer coöperation in preparing and executing plans through the harmonious working together of city officials.

Official and Unofficial Backing

The attitude of mayor or city manager, of city commission or council, toward city planning activities usually determines how much can actually be accomplished during a given administration. A hostile mayor may be overriden by a council with public backing, but an antagonistic council holding the municipal purse strings can effectively obstruct progress. In half of the cities visited the attitude of the mayor was found to be distinctly friendly and favorable to planning, and a large number of these cities are those well known for planning activity, such as Memphis, where the tradition of mayoral support is distinguished. Perhaps a score of cities reported that the mayor was lukewarm or hostile, ascrib-

ing as reasons such situations as political opposition of personalities, fear of stirring up trouble, personal opposition to zoning, pique at the turning down of some specific proposition favored by the mayor, and mayoral ignorance of the purposes of city planning. Although it was not found from observation that the city manager form of government, taken by and large through the country, has yet been more conducive to planning progress than any other form, nevertheless it is interesting to record that *no* city managers visited were found hostile to planning, active friendliness being the rule.

About the same number of legislative bodies as of mayors were reported friendly. Only a few city councils had the exceptional record of Madison, Wis., where in a period of eight years the city council has never passed a project disapproved by the planning commission. In Los Angeles the council is sympathetic toward planning, due to the pressure of public opinion. In Kenosha, Wis., — a shining example of successful planning in a small city, — the council is reported "whole-heartedly behind" the commission. Jealousy and ignorance were the principal causes ascribed for the neutrality or hostility of the score or more city councils so reported. In one city where planning is notably backward, the council is said to feel entirely competent to run the city without the aid of the planning commission. If such a city council could see the difference in efficiency, convenience, and amenity between that city and some of its more progressive competitors, such supreme self-confidence might be severely shaken.

The attitude of the public toward planning is inevitably bound up with that of the press, because thousands of citizens form opinions on public matters only as they read the daily papers. The city planning movement could not have achieved the successful position which it now occupies if the press of the country had not in general given liberally of space and played up planning projects as important matters for public consideration. This is discussed further in Chapter VI. In most of the cities where planning is a real force in the community, there has been leadership or hearty support from the newspapers. A long list of city planning commissions report the press as "favorable," "very favorable," "enthusiastic," "sympathetic," or even, as in Altoona, Pa., contributing to funds for city planning work. Among cities in the country notable for planning progress, none has been more favored by press leadership than Dallas: the *Dallas News* has been a vital force in making planning known and desired through a large part of Texas and the Southwest.

The press of New Orleans in 1919 prepared the way for the official planning commission later appointed. A few newspapers have been noted for opposition to zoning or to some particular planning project, but these are a very small part of the whole number that to-day may be counted on to aid the educational work of planning commissions.

Although the public in some of the cities visited appeared to be still lethargic or ignorant of the need for city planning, the public in general does know something of "what it is all about" and shows a considerable amount of confidence in the proposals of city planning commissions, particularly as to zoning. Various methods of educating public opinion in the cities where planning has been seriously undertaken are discussed in Chapter VI.

A coöperative attitude on the part of utility and public service corporations is extremely important to the success of city planning commission work, and the relations established with these by a planning commission or department may have a deep influence on realization of plans. There is sufficient evidence to state that in some cities all utilities coöperate, both in furnishing data to the planning commission, and reciprocally in making use of data acquired by the planning commission and of planning studies put forth. In other cities, some one utility may be obstructive. The preponderance of attitude is decidedly favorable, with notable instances of telephone, street railroad, gas, and water company aid to or profit from municipal planning work.

Among civic-commercial organizations, chambers of commerce and real estate boards have been pioneers and strong supporters of planning. The participation of chamber of commerce committees in planning activity has already been recorded in an impressive bulletin of the Chamber of Commerce of the United States (1928). In cities now without an official planning commission, as Lincoln, Neb., the chamber of commerce is keeping the subject alive. The indorsement of city planning by realtors can be gathered in their local and national publications, by their presence on city planning commissions, and by their local leadership notable in several cities. In a few cities, such as Detroit, is found exceptional hostility of downtown real estate groups to zoning. In general, and especially as regards platting control, which falls within the business field of the realtor, real estate boards are found already or in course of becoming actively favorable to city planning.

The sources of support which may be looked for in initiating and carrying on any worthy civic enterprise are as varied as the interests

which make up communities. Because of the idealistic as well as the practical character of city planning, the movement has appealed to a great variety of organizations working for the improvement of community life, from the architectural, recreational, educational, and social points of view. City clubs as in Portland, Ore., and Denver, service clubs such as Kiwanis, Lions, and Rotary, art associations, local chapters of architects and engineers, women's clubs, garden clubs, and various local or district organizations of property owners or business interests either separately or in federations, have been instrumental in starting or supporting a city planning commission. From Chapter VI may be realized the fruitful participation of civic organizations in conducting educational campaigns and securing public backing for planning projects.

Planning Commission Leadership in the Community

The city or town planning commission has the opportunity to become the real and respected leader of community development. Through preparation and protection of zoning ordinances which appeal to home owner and business man alike as measures for stable and well-rounded growth, through balanced improvement of systems of streets along which all citizens must pass in moving between home, work, and play, through studies for better means of mass transportation, of railroad terminals or port development, through planning of park and recreation systems and the relation of these to school and neighborhood use, through the suggestion of attractive and dignified civic centers expressing community life, the planning commissions of large cities and small towns may become the rallying point for all the constructive social forces of the region. By intelligent coöperation with other municipal officials in budgeting funds available for public improvements, and by wise educational campaigns and continued watchfulness against subversive or selfish proposals, the planning commission can steadily guide the carrying out of municipal improvements which might be constructed in the wrong place and at the wrong time were there no well-rounded plan ready and no balanced leadership toward desirable goals.

CHAPTER IV

AGENCIES FOR REGIONAL PLANNING

What Is a Region?

It is difficult to define the extent of territory connoted by the word "region," as this is now being used for purposes of regional planning. The outstanding pioneer area was the Boston Metropolitan District, now composed of the 40 cities and towns bound together by common needs for utilities and parks, and covering 392 square miles. The great enterprise undertaken by the Regional Plan of New York and Its Environs embraces an area fifty miles in all directions from the heart of the city of New York, including 400 municipalities and portions of three states in an area of 5528 square miles. Similarly the Chicago and Philadelphia enterprises are tri-state in character, Chicago including nearly a thousand governing bodies in an area of 7800 square miles, and Philadelphia some 3500 square miles containing 340 cities, boroughs, and townships.

As is natural, official regional planning agencies, created by law, are likely to be confined to a single existing political entity, as Milwaukee County, Los Angeles County, Allegheny County (Pa.), Glynn County (Ga.), Lucas and Hamilton counties (O.), although the jurisdiction of the Niagara Frontier Planning Board and the Maryland-National Capital Park and Planning Commission include all or part of two counties. While political boundaries seldom form the actual boundaries of the whole topographic or economic unit desirable for comprehensive planning, nevertheless the county has offered an available area for the preparation of plans broader than any one municipality alone could undertake.

For practical ends the criterion for demarcating a region suggested by the Philadelphia Regional Federation would appeal to the ordinary citizen: an "area approximately included within commutation and easy one-day shopping distance of the central cities" or city. This definition applies to all the urban regions which have so far emerged for planning purposes, but is inadequate to cover such an area as Glynn County, Ga., where the unifying force is largely the resort character of

the shore and islands. A more inclusive definition might well be: a region is an area unified by common economic and social purposes, large enough to permit a reasonable adjustment of necessary activities to sub-areas and small enough to develop a consciousness of community aims.

The number of governmental units within any developed urban region imposes limitations on the opportunity for results from the work of a regional planning agency. Where a large number of active municipalities are included, the task of the regional body is equally the creation of a spirit of coöperation among local officials and the preparation of technical studies. The Chicago Regional Planning Association offers an outstanding example of actual results secured through the participation of a very large number of county and local officials and through education of the communities involved. Where much land is still undeveloped and local governments are accustomed to coöperate with a strong county authority, as in Los Angeles, the actual powers of the regional commission are exercised in a different way to secure the same results. The pioneer technical work of the Regional Plan of New York was necessarily of a more searching and elaborate character than would be appropriate for regional bodies which might now be organized elsewhere, although the educational functions are comparable.

The preparation of master plans, taking advantage of all the combined experience of county and local officials, into which local and special plans may be fitted, is the chief planning function of a regional agency. Such master plans, as set forth in the Department of Commerce Standard State Enabling Act, include systems of streets, parks, public buildings, public utilities, forests, water-supply and sanitary areas, and zoning, "with the general purpose of guiding and accomplishing a coördinated, adjusted, and harmonious development of the region and of public improvements and utilities which do not begin and terminate within the boundaries of any single municipality."

Official Metropolitan and County Planning Agencies

Due undoubtedly to the difficulties of securing support for legislation authorizing metropolitan agencies and to a natural reluctance to increase the number of governmental bodies even of an advisory character, there are still less than a half dozen official regional planning commissions having jurisdiction over more than one county.

The oldest of these is the Boston Metropolitan District Commission,

amalgamated in 1919 from a metropolitan water-supply and sewerage board and a separate park commission. Although theoretically charged with general planning functions for the district through a Division of Metropolitan Planning, the Metropolitan District Commission, actually and by suggestion of the State Legislature, limited its planning work primarily to problems of highway transportation and transit, to water-supply and sewerage, and to parks and parkways. The construction of circumferential and cross-town arteries has been its major concern.

The Niagara Frontier Planning Board, created by the State Legislature in 1925, originated in a coöperative movement of local officials toward solving mutual planning problems. The work of this semi-official group was already under way when the Board was endowed with legal status. Impetus to regional organization was given not only by the city planning activity of Buffalo, but also by the proposals of Governor Smith for the development of planning in all the key-regions of the State of New York with the idea of later coördinating the regional plans into a State plan. A good proportion of the municipalities in Erie and Niagara counties, comprising the Niagara Frontier promptly coöperated in the work of the new official body, which was backed by the educational organization from which it originally sprang. The Niagara Frontier Planning Board was active from 1925 to 1928 * in establishing local planning and zoning bodies throughout the region and in preparing park and highway plans, portions of which have already been realized, as well as in developing water-supply and sewerage districts and improving bus transportation, — all with reference to an ultimate comprehensive regional plan gradually being worked up.

The National Capital Park and Planning Commission created by Act of Congress in 1926 (superseding the earlier National Capital Park Commission) was charged by law with the following duties: regional planning, city planning within the limits of the District of Columbia, administrative duties of the former Highway Commission in connection with the street plan of Washington, and purchase of property for parks, parkways, and playgrounds. By the terms of the Act the National Capital Park and Planning Commission was directed to act in conjunction with such representatives of the States of Maryland and Virginia as might be designated by these States for the purpose. In the three years of its existence this Commission, with its distinguished membership, has prepared a series of comprehensive studies for the National Capital

* Difficulties over funds for its operation arose in 1929. See page 57.

THE REGIONAL PLANNING COMMISSION
COUNTY OF LOS ANGELES

ORGANIZATION, POWERS, AND DUTIES

THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES IN JANUARY, 1923 ESTABLISHED THE FIRST OFFICIAL REGIONAL PLANNING COMMISSION IN THE UNITED STATES. THE POWERS AND DUTIES OF THIS COMMISSION, AS SET FORTH IN THE ORDINANCE CREATING IT, ARE:

"A TO MAKE A STUDY OF THE PROBLEMS OF THE COUNTY WITH RESPECT TO RESIDENTIAL AND INDUSTRIAL DISTRICTS, TRAFFIC CONDITIONS, PUBLIC PARKS AND BOULEVARDS, FLOOD CONTROL, SUBDIVISIONS, AND IN GENERAL WITH RESPECT TO THOSE MATTERS AFFECTING THE ORDERLY GROWTH AND DEVELOPMENT OF THE COUNTY AS ONE LARGE COMMONWEALTH AND TO MAKE TO THE BOARD OF SUPERVISORS RECOMMENDATIONS FOR THE SOLUTION OF THE SAME.

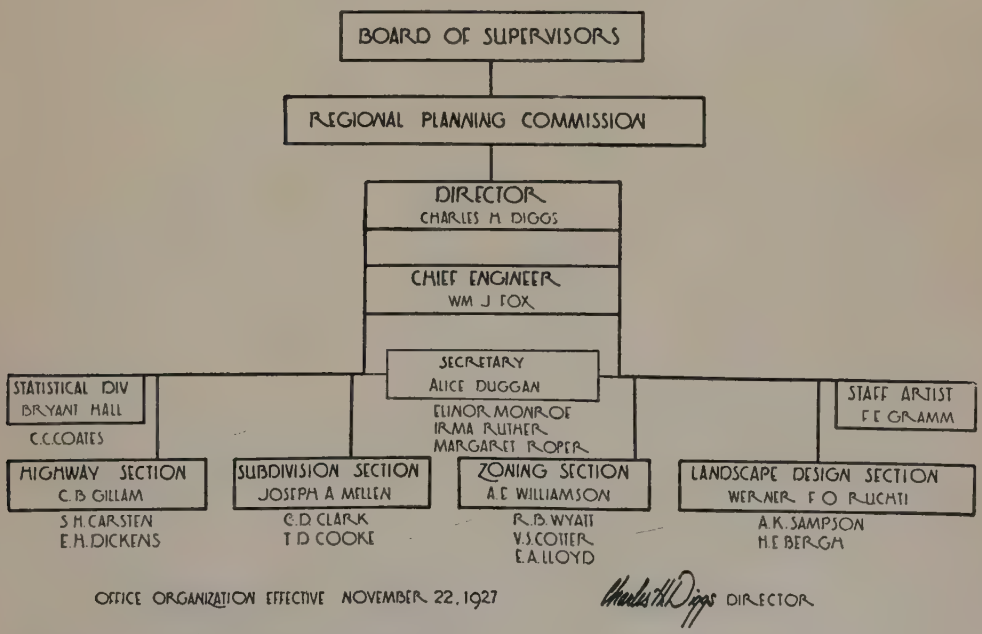
"B TO ADVISE WITH THE BOARD OF SUPERVISORS AND OTHER COUNTY OFFICIALS WITH RESPECT TO THEIR DUTIES AFFECTING ANY OF THE ABOVE MATTERS.

"C TO SEEK TO INTEREST THE VARIOUS MUNICIPALITIES AND OTHER POLITICAL SUBDIVISIONS OF THE COUNTY IN A JOINT EFFORT TO UNDERSTAND AND SOLVE THE COMMON PROBLEMS OF DEVELOPMENT CONFRONTING THEM AND THE COUNTY"

THE COMMISSION CONSISTS OF FIVE APPOINTED MEMBERS, WHO SERVE WITHOUT COMPENSATION, AND THREE MEMBERS EX-OFFICIO; NAMELY, THE DIRECTOR (WHO IS IN CHARGE OF THE STAFF), THE COUNTY SURVEYOR, AND THE COUNTY ROAD COMMISSIONER.

. . . . . .

COUNTY OF LOS ANGELES



OFFICE ORGANIZATION EFFECTIVE NOVEMBER 22, 1927 Charles H. Diggs DIRECTOR

Courtesy of Los Angeles County Regional Planning Commission

region, all of which have been immediately useful in changes of highway plan, zoning questions, and purchase of land for park purposes, as well as in focusing the eyes of the Nation on the capital's needs for worthy and dignified growth.

The success of the Commission stimulated the establishment in the State of Maryland of a similar body called the Maryland-National Capital Park and Planning Commission, embracing parts of Montgomery and Prince George's counties in which are situated 15 incorporated towns and 12 special taxing areas, almost equivalent to towns. It is interesting to note that while the planning district under the jurisdiction of this commission is bounded by roads, the control of the commission extends 300 feet beyond the bounding road. This commission, organized in 1927, was authorized to make and adopt a plan (including zoning) for physical development coördinated with the District of Columbia plan, and also acquire lands for parks, streets, forests, etc., within its jurisdiction. Already zoning has been adopted in both counties concerned and comprehensive regional studies, in close coöperation with those for the District of Columbia, are well under way.

The first of the separate county regional planning commissions was established in Los Angeles County, Cal., in 1922, although four years earlier a planning agency had been unofficially established in Allegheny County, Pa. A background of regional coöperation was already established in Los Angeles County, especially through the work of the Supervisors of the County Flood Control District and County Sanitation District. The work of the Los Angeles Regional Planning Commission, starting under favorable auspices, has been most successful, especially in educating public opinion throughout the county to a favorable attitude toward regionally studied proposals, and in securing the carrying out of major highway projects. Coöperating with the strong City Planning Commission of Los Angeles, it is raising the standards of land subdivision in this rapidly developing metropolitan region and fostering an interest in city planning technique bound to improve the quality of local planning throughout the county. The theory of operation of the Los Angeles County Regional Planning Commission was ably presented in a paper by Mr. C. H. Diggs before the National Conference on City Planning, Buffalo, 1929; and the commission has also issued a useful statement of office procedure, in addition to its reports.

The Allegheny County Planning Commission became a legally constituted body in 1923, as part of the County Department of Public

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Works. Topographical work and some study of major highways have been its principal activities.

The Milwaukee County Regional Planning Department began to function on April 1, 1924, having been created, under the 1923 regional planning and zoning laws of Minnesota, on the petition of the County Park Commission. It is interesting to note that this petition drew attention to the "confusion" in the development of the areas intervening between the cities of the county "incident to the rapid growth in population and commercial interests." The duties of the new department were shortly enlarged to include both those of a county planning office and a park engineering department, and the county highway commissioner became chief planning engineer. The work of this very active department has proceeded in coöperation with the already strong planning body (Board of Public Land Commissioners) of the City of Milwaukee, and in five years has secured the adoption of county use-zoning, made a good start on a system of county parks and parkways, established the routes and widths of a system of county major thoroughfares, (using a novel series of highway signs *), and promoted better control of platting and coördination of local business centers with future lines of transportation.

The Lucas County Planning Commission, established in 1924, has had a peculiarly close relationship with the planning commission of the City of Toledo, from which came the impetus to broaden plans to the surrounding county. Four of the eleven members of the county planning commission are also members of the city planning commission. Since, in Ohio, a county may adopt a master plan, the recently published comprehensive report on a proposed system of major highways and parkways for Lucas County, now adopted by the county commissioners, becomes binding so far as it relates to non-municipal territory. The jurisdiction of the Lucas County Planning Commission is by no means wide enough for the regional planning of the whole territory tributary to Toledo, however, for this region includes other counties in Ohio and even a part of Southern Michigan. Such a situation demonstrates the reasons why regional planning of a complex group of administrative jurisdictions is apt to become a voluntary enterprise.

The newly formed official agency for Hamilton County (organized March, 1929) has jurisdiction over only part of the real Cincinnati region, which, however, is linked together by the United City and

* Illustrated opposite.

Regional Planning Association, expanded from the United City Planning Committee.

Taking advantage of the California Act, the Santa Barbara County Planning Commission was established in December, 1927, largely in response to a demand from property owners in residential districts that the scenic beauty of the county should be protected against undesirable development, — now threatening in connection with recently discovered oil fields. The new commission is actively conducting educational work throughout the county and initiating comprehensive studies which look to an allocation of uses which will not damage the attractiveness of the county as a scenic resort.

Of similar origin in Georgia is the Glynn County Planning Board, established in August, 1928, and primarily concerned with preserving and enhancing the pleasure-giving qualities of the region as a winter seashore resort. County zoning was adopted late in 1928 in accordance with a comprehensive county master plan. Parks are being acquired and developed, and control over subdivisions exercised. The work of this Glynn County Planning Board and of the Santa Barbara Commission has particular significance because they are locking the stable before the horse is stolen and because their example should suggest a similar policy of conservation to other areas still rural in character.

There are few other functioning county planning commissions in the United States. In Syracuse the Onondaga County Park and Regional Planning Board, organized by the county in 1927, is getting under way with special attention to parks. A similar planning and park board for Monroe County, centering in Rochester, has just been established. In Seattle, the King County Regional Planning Commission, purely advisory, is studying needs and possibilities of county planning and aiming at securing powers to undertake work similar to that of the Milwaukee County Regional Planning Department. An official county planning commission has been authorized for Passaic County, N. J., but not yet appointed. There is an active commission in Putnam County, N. Y.

The regional planning commissions in the State of Oklahoma, for Tulsa, Oklahoma City, and Ponca City, are really little more than platting and highway planning bodies created as adjuncts to the municipal planning commissions to enable these to control subdivision for three miles outside of the city limits. The memberships of the municipal and the regional bodies are nearly identical, with the addition of certain county officials, and their scope appears largely to be the result of the

form of the Oklahoma State Enabling Act rather than of any logical demarcation of an urban regional area.

Two other official regional planning agencies are known to have been initiated but never to have produced any results. In the State of New York, the (Albany) Capital District Planning Commission, authorized several years ago under Governor Smith's planning program, which would have had powers comparable to those of the Niagara Frontier Board, never really developed, and in California the Monterey Peninsula Regional Plan Commission appointed by the Governor in January, 1928, became inactive through lack of funds and citizen support.

It has already been pointed out that although comprehensive regional planning is a recent development, the necessity of regional or metropolitan planning of some one phase of community services became apparent four decades ago. In Boston, the original Metropolitan Sewerage and Water boards provided regional systems often cited as precedents. The first fruit of unofficial regional activities in the Minneapolis-St. Paul region has been the establishment of a Metropolitan Drainage Commission with a large appropriation and corps of experts. Such bodies as the Passaic Valley Sewerage Commission and those administering the Chicago Sanitary District, the Miami Conservancy District for flood control, and many other similar areas throughout the country, are regional planning agencies of great importance.

Metropolitan and county parks have been potent influences in causing planning agencies with more comprehensive functions. The Boston Metropolitan Park Commission of 1892, the Madison (Wis.) Park and Pleasure Drive Association, founded about the same time and acquiring semi-official powers, the Essex County Park Commission (1895), and the other later New Jersey park commissions such as those for Union, Camden, and Passaic counties, the county park commissions in the State of New York of which Westchester is the most distinguished, the Palisades Inter-state Park Commission, the Wayne County (Mich.) Board of County Road Commissioners acting also as Park Trustees and emulating the Westchester program, the commissioners of the metropolitan park districts of Cleveland and Tacoma, have all been working on regional or sub-regional park systems. The great success of the Cook County Forest Preserves may well have contributed to the present coöperative effort in the Chicago Region.

Perhaps the most notable examples of special regional highway planning agencies are found in Cleveland, where officially made federal-county

studies are being further developed by the Cleveland Highway Research Bureau, and in Detroit, where the inter-county Super Highway Commissions for Macomb-Wayne and Oakland-Wayne are making progress in carrying out the great regional master plan of super-highways prepared by the Detroit City Plan Commission and the Rapid Transit Commission.

Unlike earlier metropolitan transit commissions, as in Boston and New York, the Detroit Rapid Transit Commission is more directly affiliated with the constructive planning aspects of regional development. Similarly now in the New York region, the Suburban Transit Commission and such sub-regional bodies as the North Jersey Transit Commission are correlating their studies with those of the Regional Plan of New York and of the Port of New York Authority.

Inter-state coöperation is essential in metropolitan problems such as those dealt with by the Inter-state Bridge and Tunnel Commission for the New York region, and especially for the complexities of port development intrusted to the Port of New York Authority, which is the most powerful official regional planning authority on the Atlantic Coast. Its plans deal comprehensively with railroad and ship terminals in both New York and New Jersey and form a backbone to any total regional transportation plan. Nearly two decades ago the Bogue plan for Seattle (1911) was in effect an early regional port plan, which has served as a stimulus for public support of the work of the Commissioners of the Port of Seattle.

Unofficial Agencies for Regional Planning

The Regional Plan of New York and Its Environs originated in the suggestion of Mr. Charles D. Norton to the Trustees of the Russell Sage Foundation that a sum of money be appropriated to make a plan for the entire region based on imagination and long continuing study of facts, representing in the broadest way all interests in the community and realizing "to the maximum the economic and social values of this great world capital and port." Launched in 1922, the new organization sponsored by the Sage Foundation assembled a great staff of consultants and experts, and proceeded to make the most exhaustive surveys of physical, economic, social, and legal conditions throughout the region, at the same time working toward a master plan and formulating standard requirements for local planning. The plan was publicly presented to the citizens of the Region on May 27, 1929. The monumental results of the surveys and plans already in course of publication, and the principles

and standards worked out, are an invaluable source of reference for communities all over the country. The immediate stimulus to planning in communities of the New York region has been immense, both through the enabling legislation secured and through direct educational work.

Benefiting by the experience of New York, the Regional Planning Federation of the Philadelphia Tri-State District was formally organized in December, 1925, after preliminary work had been going on for over a year. Stretching from Wilmington on the South to Trenton on the North, the territory embraced by the studies of the Philadelphia Federation touched the Southern border of the Regional Plan of New York and thus included the complete metropolitan area tributary to the Philadelphia-Camden urban center. Although purely an unofficial advisory body, the Federation secured the representation of local and county officials within the region on the numerous special advisory committees carrying forward various phases of the preliminary studies immediately undertaken. Representatives from these committees with additional technical men from the region make up a Technical Advisory Committee, now reënforced by a board of consultants. The work of the technical office staff was devoted primarily to the necessary regional surveys and to certain immediate planning problems, as for by-pass highways, in which hearty coöperation from state, county, and local authorities was secured. Public relations and popular education were promoted at the same time. In 1928 the scope of technical work possible to be undertaken by the Federation was increased through the raising of a fund to which the public utility bodies of the region, as well as the public, contributed largely. It is much to be hoped that the large contributions to the fund from special interests will not result in the destruction of the coöperation and widespread confidence among the smaller localities in the three states concerned, which the initial work of the Regional Planning Federation had successfully called forth.

The Chicago Regional Planning Association, already mentioned for its substantial accomplishments, was first organized in 1923, and established in 1925 as a corporation, not for profit, with an active program of work. The original stated purposes of the Association * are to assemble definite facts about the Region, and from them to estimate the future requirements of the expected population; to compile master plans for the various construction activities which must accompany the growth

* A valuable recent statement of major policies of the Association by D. H. Burnham, Jr., may be found quoted in *City Planning*, July, 1929.

in population; and to help coördinate the work of the many authorities both public and private, now planning and carrying out projects. One of its first achievements was to secure an agreement drawn up between the United States Bureau of Public Roads, the Illinois Division of Highways, the Cook County Department of Highways, and the Chicago Plan Commission, that the system of highways tentatively drawn up would not be departed from by any one of the four parties without submitting changes to the other three. It was the task of the Regional Planning Association staff to harmonize the discrepancies in various existing proposals. With this auspicious beginning the Association has become the acknowledged leader in planning throughout the region, promoting zoning, plat control, parks, and forests and other features of regional importance by means of special standing committees made up of public officials and other association members, including the University of Chicago, experienced in particular subjects, or serving voluntarily. The greatest service of the Association has undoubtedly been its successful handling of public relations and the consequent realization of higher standards in new developments within the wide sphere of its influence.

The Metropolitan Regional Planning Association of Minneapolis, St. Paul, and Environs, growing out of a movement started in 1923 by the Northwestern section of the American Society of Civil Engineers, was later incorporated; and although purely voluntary has already been successful in securing the establishment of the Metropolitan Drainage Commission already referred to, and in creating a definite regional consciousness. Initial efforts have been concentrated on educational work and on the preparation of a regional base map and certain special recreation and railroad studies parallel to regional zoning.

Another unofficial regional planning organization is that organized in Norfolk, Va., as the Suburban Planning Commission, a citizens' organization of Norfolk and Princess Anne counties, concerned principally with county highway problems including their policing and beautifying. This Suburban Commission coöperates with the city planning commission of Norfolk, but has no official connection with that body. A sub-regional organization near Pittsburgh is the Valley Planning Association which submits plans to the official Allegheny Planning Commission. In Fort Wayne, Ind., the Chamber of Commerce has appointed a Regional Plan Committee.

A considerable number of the sub-regional organizations engendered by the work of the Regional Plan of New York, although voluntary, have

memberships composed largely of officials, as the very active and successful Westchester County (N. Y.) Planning Federation,* and the less active Essex County (N. J.) Zoning Conference; other county bodies are largely educational in character, as the Fairfield County (Conn.) Planning Association, Passaic County (N. J.) Planning Association, and the Bergen County (N. J.) Park and Planning Association. Similarly the Metropolitan Boston Planning Federation represents a start toward securing public coöperation among local officials in the Boston Metropolitan district.

One of the earlier regional associations formed for the promotion of planning which retained this function after the formation of an official planning agency is the Niagara Frontier Planning Association, which acts as an advisory and educational branch paralleling the work of the Niagara Frontier Planning Board. In Cincinnati the work of the United City Planning Committee grew beyond municipal boundaries to include aid in establishing planning commissions in adjoining municipalities, at the same time enlarging its own membership to include regional representatives, thus forming a nucleus of a regional planning organization, which resulted in the new Hamilton County Planning Commission. Several municipalities in Kentucky included in the Cincinnati region as well as more than a dozen in Ohio have profited by the work of the United City Planning Committee.

The Regional Plan Association of the San Francisco Bay counties, which through withdrawal of financial support broke down in the summer of 1928 after several years of active educational work and preliminary planning studies, has left behind it several strong sub-regional movements, including an incipient East Bay Regional Planning Association and a permanent organization of representatives from cities and city planning commissions on the San Francisco Peninsula itself called the Conference of Peninsular City Planning Commissions. An earlier and larger similar organization is the Association of City Planners of Los Angeles County formed under the auspices of the Regional Planning Commission.

Financing of Regional Planning Studies

The various ways in which the work of the official and unofficial planning agencies are being financed has been suggested in the preceding brief survey of specific organizations. The pioneer work of the Regional

* There are over twenty planning boards in Westchester County.

Plan of New York was entirely provided for by grants from the Russell Sage Foundation. First supported by membership subscriptions, the work of the Regional Planning Federation of the Philadelphia Tri-State District is now backed by the special fund raised by a professional money-raising organization. The annual sources of income for the work of the Chicago Regional Planning Association are county boards (contributing considerably more than one-third), municipalities, real estate interests, material interests, automobile and industrial interests, and clubs and local organizations. Of the official regional planning bodies those organized as county boards or departments are provided for directly by the county, such as the Allegheny County Planning Commission actually within the Department of Public Works. Out of a current appropriation of $38,000 for 1929 for the Milwaukee County Regional Planning Department, about one-half will be used for planning. The comprehensive master plan for the Glynn County Planning Board was provided for largely by private generosity, and subsequent bills connected with the activities of the Board have been paid directly by the county commissioners. Appropriations for the Regional Planning Commission of Los Angeles County are made directly by the Board of Supervisors, amounting in the 1928–29 budget to nearly $70,000. The Santa Barbara County Planning Commission budget is provided for partly by the county and the rest by private subscription. The budgets of the Lucas County Planning Commission and Onondaga County Park and Regional Planning Board, each about $7000, come directly from county funds with any subsidiary amounts raised by subscription. The so-called "Regional Plan Commissions" in Oklahoma cities have only a small or no appropriation separate from that of the related city planning commissions. The work of the Niagara Frontier Planning Board has been supported by county appropriations on the basis of equalized assessed valuations. Up to 1929 Erie County appropriated approximately four-fifths and Niagara County one-fifth of the total amount required for the operation of the Frontier Planning Board. In 1929, however, the Erie County Board of Supervisors has refused to make the customary appropriation, due to a political situation, and it has become necessary to look to other arrangements for continuing the work projected.

The educational work of the various regional and county associations already mentioned has been financed largely through membership fees, frequently on a graded basis; in some cases $5 has been charged for individual members and $25 for a corporation.

As already pointed out, the work of the National Capital Park and Planning Commission is carried on under direct appropriations by Congress. The only regional planning commission found to be financed by direct taxation is the Maryland-National Capital Park and Planning Commission, for which a 3-cent tax per $100 is levied on all real estate in the region. In addition there is a 7-cent tax for park purchase and development.

In spite of outstanding exceptions such as the two just mentioned and the county planning commissions of Los Angeles and Milwaukee, we see how relatively small official support for regional planning still remains, and how important is the educational work which must be done before any substantial portion of the territory of this country is endowed with comprehensive regional guidance.

Work of Regional Planning Offices

The three great unofficial planning agencies — for New York, Chicago, and Philadelphia — have all maintained large staffs, that of the Regional Plan of New York having been largest of all but now reduced as the series of surveys draws to completion, while that of the Philadelphia Federation has considerably increased (to about thirty) with the added funds just made available. The current staff of the Chicago Regional Planning Association numbers about a dozen, — adequate to handle a large amount of work especially in view of the expert knowledge available on the special committees of the Association and the various coöperative arrangements made for the collection of necessary data. Both the New York and Philadelphia organizations, unlike Chicago, have retained a series of special consultants even including foreign planners for brief periods. The office work of the more recent Metropolitan Regional Planning Association of Minneapolis, St. Paul, and Environs has not yet reached so highly organized a stage as its three predecessors just mentioned, and is done by the engineering departments of the planning commissions of the Twin Cities.

Looked at from a broad point of view it would appear that Chicago offers the most fruitful object lesson to other metropolitan regions undertaking planning on an unofficial coöperative basis, both because of the large proportion of financial support secured from official sources and because of the skillful utilization of local expert knowledge available without extra charge in the performance of duty, and generously directed toward producing studies and plans of regional value.

Although regional work of the highest importance is proceeding in Detroit, there is no single specially organized regional planning office. The City Plan Commission, Rapid Transit Commission, Wayne County Board of Road Commissioners, and the two Super Highway Commissions pull together but not under one roof.

Of official regional planning offices, Los Angeles County has the largest with a staff of twenty-two, and a highly specialized internal organization, which is represented in the accompanying chart. The Milwaukee County Regional Planning Department has a staff of twenty, also very well organized, — like Los Angeles, including a landscape architect as well as several senior engineers. The Allegheny County Planning Commission maintains a large field staff of surveyors with several draftsmen in the office. The Maryland-National Capital Park and Planning Commission has a technical staff of four, considerably smaller than the National Capital Park and Planning Commission. The other county planning commissions already mentioned operate largely through the director or executive secretary. An arrangement for a small office is suggested by that of Glynn County, where services of the county engineer's office are available when desired or needed for current work, and where the original county master plan was drawn up and later worked into greater detail by an outside consultant retained for the purpose.

The preparation of the regional master plan is usually conceived to be the primary function of a regional planning organization. In the New York Region, such a plan (to be presented in the last of the Regional Plan volumes) will have no official status but will represent a consensus of technical opinion as to approximate locations of major features in the vast metropolitan area. The Chicago Regional Planning Association is preparing a plan in the form of a "construction program" on the coöperative basis just described, but it is not a formal one and "will never be published nor ever considered completed." Something more definite and approximating that of New York is contemplated by the Regional Planning Federation of the Philadelphia Tri-State District. Already certain suggested features of such a plan have been foreshadowed in the Federation's publications. The master plan of super-highways for the Detroit Region is a notable example of bold planning on a great scale. Master plans are in a forward state for many aspects of development of the National Capital, and similar plans on the Maryland side are in progress. Milwaukee County master plans have been used as a basis for the highway widening program already referred to. Tentative

master plans for Los Angeles County highways and parks are being studied, and considerable progress has been made also in the Niagara Frontier region along similar lines. The Lucas County plan of major highways and parkways, officially adopted, is one of the latest regional studies available in published form.

Each of the leading regional planning agencies discussed has issued a considerable amount of printed and illustrative matter which divides itself more or less into three groups. First there is publicity literature, frankly educational in character, in the form of pamphlets, leaflets, and little periodical bulletins, directly intended to inform the public of regional needs and work, or to aid local officials in coöperating with the regional agency. Such are the fliers issued from time to time and the useful clipsheet usually issued weekly from Los Angeles County, the little magazine *Planned Progress* (formerly *Highlights*) from Philadelphia, and the pamphlet "Town and Village Planning" published by the Niagara Frontier Planning Association shortly after the organization of the official board. Second, there are the groups of separate survey or plan studies, ranging all the way from the elaborate series of the Regional Plan of New York to the fewer but also effective special pamphlets of the Chicago Regional Planning Association and the Philadelphia Federation — such as "Maps of the Region of Chicago" and such as "A Picture of the Region" and "Meadow, Forest and Stream" (both Philadelphia) — which have a distinct educational use but also technical value, both locally and to other cities studying similar problems. The third group comprises annual and summary reports, among which those of the National Capital Park and Planning Commission, Milwaukee County Regional Planning Department, and Niagara Frontier Planning Board stand out. Partaking somewhat of the nature of all three groups is the pamphlet of the Regional Planning Commission of Los Angeles County just issued in January, 1929, which commends itself as a valuable suggestion for similar publications by other regional bodies. The Commission's organization, purposes, and work already accomplished and now in progress are clearly explained and illustrated by well-drawn plans and charts and the whole effect is calculated to create interest and confidence.

Stimulus of Regional Planning Studies on Local Planning

The public relations work of regional planning organizations — including lectures, conferences, and other forms of publicity discussed in Chapter VI — in addition to direct contact with local official agencies,

has resulted in widespread knowledge of what regional planning means in many of the regional areas already referred to. The greatest stimulus to local planning, however, has undoubtedly come from the higher standards set up by the regional agency and the skeleton plans which have suggested to local areas certain unthought-of desiderata.

The brilliant legal studies made for the Regional Plan of New York, which resulted in new enabling legislation, were a considerable factor in promoting the spread of planning and zoning throughout the New York region, acting coincidently with extensive work of the Regional Plan's public relations division which coöperated with numerous regional and local groups, both official and unofficial. Partly from this effort, a very considerable number of new planning commissions were appointed, several sub-regional organizations formed, and official county park commissions secured in two New Jersey counties. In the Chicago region, there has been an equally strong, and perhaps even more direct, impetus to local planning through the work of the Chicago Regional Planning Association. As a result there were in this Chicago region late in 1928, 10 local plans adopted and operating, 18 prepared but not yet operating, 19 being prepared, and 6 being redrawn. Standards of land subdivision have been raised, and zoning encouraged, often as a means for initiating more comprehensive planning. Similarly in Philadelphia, Detroit, and the Niagara Frontier the stimulus to local planning has been strong; and in Los Angeles County, where there is a greater area of unincorporated territory, the effect on existing local authorities has also been stimulating and satisfactory. The work of the National Capital Park and Planning Commission was a direct cause of the similar work undertaken in Maryland.

An ideal arrangement for producing local results in a region of average size would seem to be some official or semi-official regional planning office having the confidence and coöperation of local officials involved, and a large advisory council or affiliated popular organization with special committees on which local officials and citizens could both be represented, and thus, through working for regional planning ideals, could catch the spirit needed to view local requirements from a broader point of view. If we were to appraise the forces now at work in this country toward a better understanding of planning purposes, no group of agencies would be counted more influential than these pioneer regional bodies of New York, Chicago, Philadelphia, Washington, Los Angeles, Milwaukee, and the Niagara Frontier.

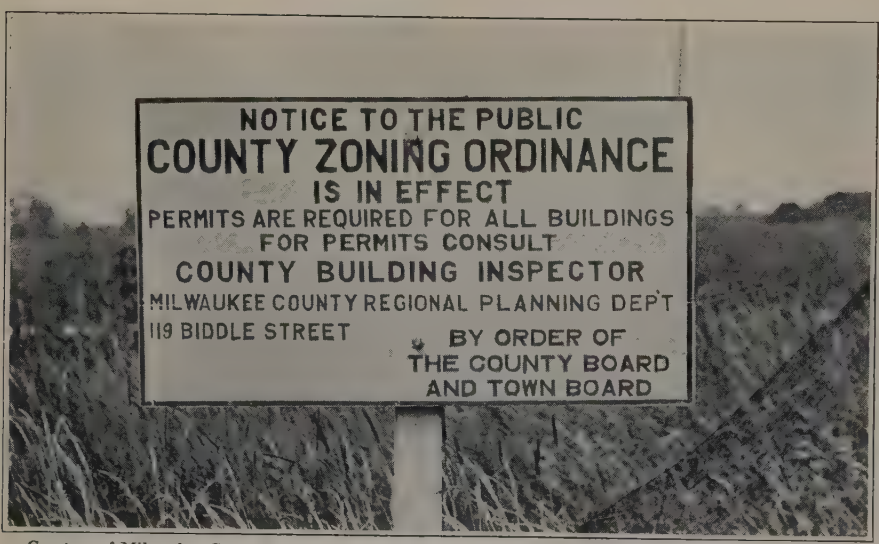
Notable Accomplishments of Regional Planning To-Day

To review the kinds of accomplishment noted here and there in the preceding part of this chapter, we find that the major activities of regional planning bodies have been concerned with zoning and major thoroughfares, park systems, control of building development, utilities, transportation, and port development.

A county use-zoning ordinance, passed in Milwaukee County in October, 1927, has been adopted by nearly all the townships in the county and has undoubtedly influenced Kenosha County to pass a comprehensive zoning ordinance which as yet has been adopted by only a few townships. Glynn County, Ga., also has a comprehensive zoning ordinance passed in 1928, effective throughout the county and representing one of the most important achievements of the County Planning Board. Also in Georgia it should be noted that Fulton County has a sort of zoning ordinance that is virtually inoperative (being dependent on petitions of property owners for a residential classification), but here there has been no regional planning agency to lead the way. In Los Angeles County, too, there is a use-zoning ordinance adopted in September, 1927, but while this may have a beneficial influence in the development of non-municipal areas there is much work still to be done by the Regional Planning Commission before zoning in Los Angeles County becomes comprehensive in character. The successful passage in Montgomery and Prince George's counties of comprehensive zoning ordinances prepared by the Maryland-National Capital Park and Planning Commission is the first fruit of the commission's work. It is interesting to find that a county zoning enabling act was presented to the 1929 legislature of the State of Illinois, and recommended for passage.

Major thoroughfares being the backbone of master plans, thoroughfare systems have been a leading objective in regional planning work. In the Detroit region, road building has proceeded in accordance with the master plan; and notable progress in construction along lines approved by the Regional Planning Association is reported from Chicago, and also a beginning on by-pass highways in the Philadelphia district. The official adoption of the major highway system for Lucas County has been noted, and also the determination and posting of highways to be widened throughout Milwaukee County.

As examples of park systems promoted by regional planning there should be especially mentioned those stimulated by the Regional Plan



Courtesy of Milwaukee County Regional Planning Department

MILWAUKEE COUNTY PROTECTS ITS PLANS

of New York, the Milwaukee County Parks, the Wayne County Parks, and those in the Niagara Frontier region. Public interest in the Philadelphia region in the preservation of stream valleys has been greatly increased, and is taking the form of movements for county parks of the same character as those already flourishing in the New York region and across the river in Camden. The National Capital Park and Planning Commission, as fast as funds are made available by Congress, is securing parks according to the regional plan, and in Maryland similar action has been made possible by the special property tax.

Outstanding examples of improved platting control resulting from the work of regional planning bodies are Chicago, Milwaukee, and Los Angeles in addition to the National Capital Region.

The chief current example of planning for regional utilities appears in the Minneapolis-St. Paul region. The most distinguished transit and transportation studies are those of the Detroit Rapid Transit Commission and of the Regional Plan of New York, just as the studies of the Port of New York Authority are outstanding in the field of port development.

Future Development of Regional Planning

As we survey the immense number of distinctive urban and rural regions of the United States which are making no conscious effort toward comprehensive development or preservation of individuality, we realize the opportunities that are constantly slipping away before the growing tide of population. In New England the Connecticut Valley is a famous region, yet the Connecticut Valley Regional Planning Association died an early death. All of New England composes a sort of unified superregion, yet the New England Council formed to promote its prosperity has paid very little attention to the underlying considerations of physical planning. The prosperous region of the two Kansas Cities has not produced any leading regional agency from the initial steps taken in forming a joint committee. St. Louis, strong in city plan commission work, has nothing to match with Chicago. Of areas luring tourists for pleasure visits, like the Carolinas and Florida, how very few have plans such as Glynn County or Santa Barbara! The vast neglected opportunities of the country are appalling, even when we add to the influence of actual regional planning agencies, the splendid volunteer work of city plan commissions affecting development of surrounding territory. When we are tempted to congratulate ourselves on the spread of city planning and zoning, we must in the same breath declare the need of enabling legis-

lation for regional planning, as suggested by the Department of Commerce Standard City Planning Act, and for education of public opinion to demand planning of larger areas.

Whether this is to come about through metropolitan federations, through county offices, or through unofficial agencies remains to be seen. The experiments already made and in the making will tell us more in the next five years. Whatever the method, coöperative endeavor will be the keynote.

Regional planning enterprises have brought out the need for fitting regional projects into even larger schemes. Although state and national planning are still conceptions beyond the ken of most of us, aspects of planning on so grand a scale are already becoming familiar in national and state highways, parks, and forests. The greatest planning need to-day is a national survey of land uses, actual and potential, which may form a basis for a sort of national super-zoning plan and for determining the national trunk lines of transportation to which all state and regional planning enterprises may be effectively related.

CHAPTER V

STATE ORGANIZATIONS AND STATE PLANS

State Divisions of City and Town Planning

THE earliest official state bureau for the promotion of city planning was established in 1919 by Act of the Pennsylvania Legislature, enlarging the functions of the Bureau of Municipalities which had been created in 1915 in the Pennsylvania Department of Internal Affairs. The division formed to take charge of the new duties is now called the Division of City Planning and Municipal Engineering. Acting as a clearing house of information on all phases of city planning throughout the state and bringing before local authorities new ideas of desirable fields of community development, at first this bureau served also as a planning agency for municipalities which requested aid. The early program of the Bureau in furnishing actual planning services throughout the state was, however, more ambitious than proved desirable from the point of view of local independence or apportionment of state funds. Indeed it would obviously be impossible and undesirable for any state bureau to provide all the planning services needed by all the municipalities in a state. Following direct services for certain selected demonstration planning projects, and a large amount of early promotional work including the establishment of a permanent association of planning commissioners, — which acts as a medium for the further spread of planning information, — at the present time the Pennsylvania Division confines its city planning work — as distinguished from its municipal engineering and park service — to public education and securing inter-community coöperation.

The history of state educational aid to planning is much longer in Massachusetts than in Pennsylvania, but the actual formal organization of a separate office for the purpose dates a year or so later. The Massachusetts Homestead Commission, authorized in 1911, was primarily intended as an experiment in actual state aid to housing, but its functions were shortly enlarged to include the encouragement of the creation of

local planning boards and the gathering of information relating to city and town planning for the use of these boards. The enlarged functions were authorized practically at the same time with the passage of the state act making planning boards compulsory in Massachusetts cities and towns having a population of ten thousand or over. For the remaining six years of the Homestead Commission's existence it exercised an increasing influence on local planning, particularly through the annual planning conferences initiated in 1913, for the benefit of planning commissioners newly appointed in compliance with the State Act of that year. Out of these conferences grew in 1916 the Massachusetts Federation of Planning Boards.

When the whole administrative machinery of the State of Massachusetts was reorganized in 1919, the work of the Homestead Commission was taken over by a Division of Housing and Town Planning in the new Department of Public Welfare. Close coöperation with the Massachusetts Federation of Planning Boards continued, the Conference each year was called by invitation of the Governor, and a very considerable percentage of the cities compelled to appoint boards were found to have done so, some of them having undertaken real planning work. However, with the enlarged planning powers afforded by the zoning law of 1920, the need for a special field agent devoting his time to educational work became increasingly apparent; and in 1923 one was appointed and has been continuously active ever since. His present title is "Visitor to Planning Boards," this having superseded the earlier appellation, "State Consultant," which expressed less accurately the appropriate functions of a state official in relation to local planning work.

These two state divisions of town planning in Pennsylvania and Massachusetts are the only two existing state agencies for the promotion of city and town planning in the United States.* They are the examples which other states contemplating similar agencies must study, — models either to be varied from or followed, as a critical comparison of state needs and desired results may dictate.

For this reason it is worth while to see if any general conclusions from approximately ten years of experience seem to appear. In both states facts point to the scope of such a division's work as being confined to

* The California Commission of Housing and Immigration included the promotion of town planning in its general program of educational work, but this is now carried on largely by voluntary agencies. In Wisconsin bills are now pending (May, 1929) authorizing the appointment of a state planning engineer and the creation of a State River Valley Zoning Committee, which together would in effect create a kind of state planning agency.

helping communities to help themselves, acting as a center of information but doing no actual planning. In both states the fostering of a federation of local planning commissioners has been a fruitful activity. In both states the compilation and publication of those portions of state statutes which give authority for making, financing, and protecting plans have proved an invaluable service. The Massachusetts Federation of Planning Boards Bulletin No. 20, 1926, prepared and issued in coöperation with the State Division of Housing and Town Planning, is a model publication of this sort. Special bulletins dealing with separate phases furnish somewhat similar service in Pennsylvania. Other appropriate activities are the preparation and circulation of bulletins suggesting elementary procedure in planning and zoning, and the publication of annual reports recording progress, featuring progressive cities and inevitably showing up backward communities. A most desirable function of a state division of planning is the analysis of existing legal powers in relation to actual results and the shaping of supplementary legislation needed to remedy observed deficiencies. Similarly court decisions must be watched for their bearing on planning limitations and opportunities, and news circulated to planning agencies of the state. Some or all of these suggested functions may be found both in Massachusetts and Pennsylvania: in both states the experiment in creating such a division within an administrative department has proved itself a success.

State Federations of Local Planning Agencies

The long standing and distinguished work of the Massachusetts Federation of Planning Boards, its publications and conferences, have just been referred to. Its series of bulletins, now numbering twenty-three, represents the most consecutive and substantial contribution to the educational literature of planning which we have from any state organization. The Pennsylvania Association of Planning Commissioners, growing out of an association confined to cities of the third class, is the auxiliary of the state bureau, which publishes the association's bulletins and promotes its purposes. An examination of "Practical City Planning in Pennsylvania" shows how useful an account of an annual conference (Altoona, 1928) may be made. Interest in planning from the housing point of view finds expression in the Pennsylvania Housing and Town Planning Association, which features zoning especially in its reports and meetings, and serves thus to reach social workers not affiliated with the Association of Planning Commissioners. These Pennsylvania and

Massachusetts Conferences should be studied by organizations in states where such meetings are less well established.

California antedates Pennsylvania in focusing planning interests by means of state-wide conferences. In 1914 there was organized the first California Conference on City Planning which became the title of a continuing organization, issuing occasional bulletins, affiliating with the California League of Municipalities, and sponsoring and working for the passage of the California enabling act of 1927. This Conference has been eclipsed since 1926 by the annual planning conferences under the auspices of the California Real Estate Association which have attracted a great variety of interests to participate. A paper read at the 1929 Conference (the fourth in the Real Estate Association series) by Mr. Bryant Hall of the Los Angeles County Regional Planning Commission is a unique and valuable contribution entitled "The History of City Planning in California;" and this suggests a lack of similar compiled information in other states where city planning history has already been made.

The Ohio State Conference on City Planning, established in 1919, is a permanent organization which has brought together officials connected with city planning and all those interested in promoting better planning legislation and wider knowledge of the subject in Ohio. Although no printed publications have emanated from this organization there have been numerous mimeographed bulletins circulated among its members; and its achievements in securing progressive planning legislation in Ohio are notable, resulting in powers equaled in few other states.

The Indiana City Planning Association began in 1923, due to the influence of the School of Civil Engineering and Engineering Extension Service at Purdue University. Annual conferences were held from 1923 to 1926, but since then although conferences have been talked about no meetings have actually been held. The educational campaign conducted by this Conference did much to stimulate the formation of local planning commissions, so that at the Terre Haute conference in 1926, officials were present from all but one of twenty-two Indiana cities having city planning commissions. The Indiana City Planning Primer prepared by the Conference Secretary, Professor Lommel, in coöperation with Professor Bates, has been used extensively for educational purposes in Indiana, — a publication valuable as an example of what might be done in other states.

The Iowa Town Planning Association, which enjoyed a period of great activity from 1920 to 1926 and was instrumental in securing enabling acts for planning, was affiliated with the extension work of Iowa State College and became less active when the field agent withdrew to other work. During the period of greatest activity a most interesting monthly bulletin *Civic Improvement Items* was issued and a demonstration civic survey made in a representative Iowa city. News of town planning in the state is now published in the quarterly *Horizons* published by the Department of Landscape Architecture at Iowa State College, the chairman of this department (Professor Elwood) being also chairman of the Town Planning Division of the Iowa Engineering Society.

The Wisconsin City and Regional Planning Association was organized at a meeting held in Milwaukee in 1927 and by its second meeting in 1928 it could count thirteen municipalities and eleven counties in its membership. The leadership of Milwaukee City and County in planning matters, with strong support from the neighboring Kenosha, augurs well for the promotion of the planning movement throughout the state.

Although during the period of great real estate activity in Florida in 1925–26 a Florida City Plan Association was organized at Jacksonville, having as a particular objective securing enabling legislation for zoning, this association died a natural death shortly after the proposed legislation was defeated, — practically coincidently with the cessation of unusual activity in land development.

In December, 1928, the first Pacific Northwest Conference on City and Regional Planning was held in Seattle, at the invitation of Seattle and King County, with representatives from the states of Washington and Oregon and from Vancouver, B. C. The Conference resulted in the organization of the Pacific Northwest Association of City Planning Commissions.

A scrutiny of these federations of planning commissioners or associations for promoting city planning shows how important is a steady continuing basis of organization. Lack of interest or time on the part of officers, lack of funds for circulating information, too infrequent meetings, ephemeral circumstances of origin, all may contribute to retard progress in developing state-wide support for planning legislation or bringing out local activity which needs the stimulus of oral comparison of experiences. It is frequently in connection with some well-established, existing, more general organization that the best start for an embryo state city planning association may be made.

State-Wide Organizations Promoting Planning

The National Municipal League has led the way for state municipal leagues in promoting an understanding of city planning, and many of these have given active support in securing enabling legislation or establishing planning commissions.

The New Jersey State League of Municipalities sponsored and drafted the 1928 zoning enabling act needed to reëstablish zoning in that state. Due to the urgency of the situation, the League was backed by the specially organized New Jersey Zoning Campaign Association. Wisely the League offers no technical advice on planning or zoning, but features both subjects at League meetings and makes a business of keeping valuable records of the status of both in municipalities throughout the state. On the other hand the League of Kansas Municipalities for a time maintained a consulting service for planning and zoning, having on its staff a regular field worker for the purpose; but since this service could not be made to pay its own way, it was given up. It is very doubtful if commercial considerations should enter at all into educational work for city planning, since cities ignorant of the real values of planning are apt to look askance on a subject introduced by those seeking to profit financially from putting it into operation.

The League of Minnesota Municipalities has a city planning committee which has been instrumental in introducing state-wide enabling legislation, its efforts finally crowned with success in the 1929 session of the Minnesota Legislature. The League issued in 1925 a "Monograph on City and Village Planning and Zoning" (by G. H. Herrold of St. Paul) and circulated this all over the state as part of its educational campaign. The League of Wisconsin Municipalities aids the state city planning association by publishing its papers in the League's periodical. Similarly on the Pacific Coast, the League of California Municipalities features city planning in its monthly magazine (*Pacific Municipalities*) and also has a City Planning Section at its meetings.

The League of Texas Municipalities supports city planning, although in Texas the strongest stimulus to local planning comes from the state-wide work of the Kessler Plan Association of Dallas through its "Texas Town and City Planning Committee." The Oklahoma Municipal League has papers on city planning at every conference, and the League in Utah has a sub-committee devoted to city planning.

The Florida League of Municipalities has a committee on engineering

and city planning, sponsoring talks at the League's semi-annual meetings. City planning news is featured in the monthly publications of the Illinois Municipal League and Virginia League of Municipalities. The main objective of the Tennessee Municipal League, which has no monthly publication, is a state planning and zoning enabling act based on the Department of Commerce Standard Act, to be introduced in the 1929 Legislature. The New York State Conference of Mayors has long made a major feature of planning subjects.

Although several other state municipal leagues are promoting city planning to some extent, as in Nebraska and North Dakota, and still others have this on their programs of future activity, as in Michigan, there is a large field in many states less forward in planning which is lying ready for the pioneer work of an active municipal league.

The outstanding example of state-wide real estate interest in comprehensive planning appears in California, where recent leadership has made the California Real Estate Association one of the most potent state influences on planning progress. A series of annual city planning meetings sponsored by this association, beginning in 1926, has attracted statewide and national interest and promoted the formation of many city planning commissions throughout California. It is interesting to note that by 1928 forty California realtors were serving on such commissions, seven being commission chairmen. The Arkansas Real Estate Association is now promoting city planning for Arkansas communities.

In Iowa the link between communities interested in planning and zoning is now principally the Town Planning Division of the Iowa Engineering Society, the chairman of which has on his program especially the education of city engineers throughout the state to the practical advantages of planning. In the State of Washington the state chapter of the American Institute of Architects has been one of the main forces in educating local public opinion in the planning field.

Of state chambers of commerce, those in Tennessee, New York, and New Jersey have been reported as devoting attention to planning and zoning. The extremely interesting book issued by the New Jersey State Chamber of Commerce, entitled, *New Jersey; Life, Industries and Resources of a Great State*, amounts to a popular state survey of the physical and economic conditions fundamental to regional and state planning.

Official State Agencies Having State-Wide Plans

State highways and state parks have developed more completely into systems than any other elements of state-wide planning, just as in regional units, regional thoroughfares and parks have been matters of first concern.

In the East, Connecticut, New Jersey, and Pennsylvania have been especially progressive in developing comprehensive state highway plans, which have evolved in each case from highway transportation surveys. The New Jersey State Highway system based on the state's own surveys has a particular planning interest because of its close relationship to the regional studies of New York on the North and Philadelphia on the South. The Pennsylvania State highway studies also partake largely of a more comprehensive state planning character and, like the recent Milwaukee County plans, include the establishment of building lines along their routes. For Connecticut, Ohio, Vermont, and New Hampshire highway surveys have been prepared by the United States Bureau of Public Roads, in each case in coöperation with the state highway department. The Ohio survey, again, is particularly significant because of the regional highway plans evolving in several parts of the state. The California State Highway Commission, one of the earliest to prepare a state highway plan, uses the Los Angeles County plans as a text for preaching support for a comprehensively planned state highway system, for which again the United States Bureau of Public Roads has helped to prepare the way. Recently the Department of Public Works has considered means to standardize width and design of state highways, and relate widths to uses of adjoining property. A large number of other states are working on highway programs of a state-wide nature.

In the State of New York two elements of state planning are being developed on a striking scale. Work on the $300,000,000 program of grade-crossing elimination authorized in 1926 has already been started and has already begun to contribute to highway safety. The great state park system, for which large bond issues have also been authorized, is being comprehensively developed under the guidance of the New York State Council of Parks. Here again the linking together of regional enterprises, such as the Palisades Inter-state Park, Westchester County parks, and Niagara Frontier parks and reservations, give the state park work of New York an exceptional planning interest.

California, too, is in a way to become a leader in comprehensive state-wide park system planning because of the recent state park bond issue

and the thorough Olmsted survey now in progress. Massachusetts is also a recent addition to states taking stock of all recreational lands, through the Massachusetts Governor's Committee on Needs and Uses of Open Spaces.* Connecticut state parks are well organized into a system, graphically shown on a "picture map" issued by the Connecticut Forest and Path Association, a voluntary organization promoting public knowledge of the efficient state-wide work of the State Park and Forest Commission. The state parks of Indiana, Iowa, Michigan, Minnesota, and Washington are also being developed with a view to meeting the recreational needs of the whole state. North Dakota is distinguished for a system of state monuments, historical and physiographic, and Oregon for a series of "state highway parks" planned at strategic points to reveal scenic beauties for motorists using state highways.

Of state-wide forestry plans in those states having other broad planning features, none are more vigorously pursued than by official and semi-official agencies in Massachusetts, Connecticut, New York, and Pennsylvania.

A unique feature of state-wide survey work in Pennsylvania was the Giant Power Survey of 1924–5, in which a study of esthetic aspects of the extension of electric power facilities was added to studies of economic and industrial factors. The State of Michigan Land Economic Survey represents another type of pioneer state-wide survey, needed in all states, to guide the utilization of land based on natural conditions of soil, drainage, topography, and forest cover.

The State of New Jersey, already frequently mentioned in this chapter, has two further elements, which, joined to state highway and county park studies already undertaken, would make this state a peculiarly fitting one for the experiment of a real state plan. New Jersey state commissions have studied on the one hand sources of water-supply with a view to equitable apportionment of potable water, and on the other questions of port development, through the Port of New York Authority on the North and the Delaware River Commission on the South.

In Massachusetts state survey material collected by Mr. Warren H. Manning for the Panama-Pacific Exposition in 1915 — along the lines of his national plan studies — might have become a basis for a state plan had there been any state agency interested to pursue the matter. It was not until ten years later that the State of New York officially author-

* The Committee's report has just been published (May, 1929) accompanied by a valuable map showing existing and proposed open spaces for the whole area of the state.

ized studies for a New York state plan in connection with the work of the Commission of Housing and Regional Planning established by Governor Smith. A graphic presentation of the preliminary studies told the story of the State's development and showed roughly what areas ought naturally to be reserved for urban industry, for agriculture, and for forests. The pamphlet report prepared by Mr. Clarence S. Stein, chairman of this commission, in 1925, is the only official state plan study yet produced in this country. Unfortunately the regional planning interests of the commission were largely submerged after its reorganization into a State Bureau of Housing which concentrated on re-housing schemes for the congested areas of Manhattan rather than on the nebulous but vital pioneer experiment of state planning.

Effect of State Activities on Local Planning

Aside from the initial impetus to regional planning in Northern New York given by Governor Smith's program of 1924–5, the effect of state activities on local planning in New York has been far less important than regional influences. The enabling legislation drafted at the instance of the Regional Plan of New York is only beginning to show its future possibilities, through its early application, for instance, in Jamestown and notably Schenectady. State park planning on Long Island has aroused many small communities to appoint local planning commissions somewhat in self-defence. The New York State Federation of Planning Boards of 1924–5 had only a brief period of activity and little effect on other communities.

It is in Massachusetts and Pennsylvania that we have continuous influences emanating from official state agencies over a long period of years. In spite of the fact that compulsory legislation in Massachusetts has caused some planning boards to be appointed which have existed merely to comply with the law without engaging in any fruitful work whatever, nevertheless the demands of the law, backed up by the work first of the Homestead Commission and then of the Division of Housing and Town Planning, have produced a great deal of useful planning work, so that Massachusetts to-day is one of the acknowledged leaders in planning experience. A large number of small communities not required by law to appoint planning boards have been stimulated by the state's official field agent to undertake planning and zoning. It should not be forgotten that in the Massachusetts Federation of Planning Boards (which grew from the conference held by invitation of the Governor in 1913, and was

shaped into a working body largely under the guidance of Mr. Arthur C. Comey) there is the oldest state organization for the exchange of city planning experiences and promotion of educational work; and that from it, acting in closest touch with the state's official agency, and developing as this developed, we can trace a direct constantly increasing influence throughout the state over a period of seventeen years.

Similarly in Pennsylvania the State Bureau of Municipalities has had a long continuing influence in promoting the formation of planning agencies and development of city plans, aided by what is now the Pennsylvania Association of Planning Commissioners. This influence was continuous because of the leadership of Mr. B. A. Haldeman, who carried on even during the lean period when state appropriations for the Bureau's work were cut to almost nothing. In Pennsylvania appears again the factor of regional influence emanating, at both ends of the state, from Pittsburgh and Philadelphia.

California can show marked effects of state-wide promotional organizations on local planning, from the organization of the California Conference on City Planning in 1914 to the present activities of the California Real Estate Association. Here we see now even stronger regional movements at work, so that it is difficult to ascribe the growth of planning in the San Francisco Bay, Los Angeles, or Santa Barbara regions definitely to state as distinguished from regional stimulation.

There is a large automatic influence from state enabling legislation secured at the instance of representatives of strong city planning movements, as those of Cincinnati and Cleveland in Ohio, and Dallas in Texas, with the attendant publicity. There has been a very considerable constructive influence from the extension work of Iowa State College on Iowa municipalities; and the Department of Landscape Architecture, as already indicated, remains the central force for planning in the state — both state parks and town development — and suggests to other Western agricultural areas an appropriate vehicle for initiating a planning movement.

In those states where local planning activity is being stimulated by the coöperative efforts of those local officials already engaged in planning work, such as Indiana, Wisconsin, and Ohio, there is always the danger that an inactive president or secretary might allow the Association's influence to weaken. It would appear that the existence of an official state agency as in Massachusetts and Pennsylvania creates a continuous backing for federations of local officials which is extremely important

to repeated and successful conferences. There, in the face-to-face discussion of problems present in many communities, valuable lessons are apt to emerge and there new commissioners get a glimpse of unthought-of possibilities in their perhaps unawakened communities.

No field work which might be undertaken by the National Conference on City Planning would yield greater returns than the organization of state federations or conferences in states where enabling legislation has started sporadic local or regional planning work, and where as yet there is no state nucleus from which the planning movement may develop more widely. In states where sufficient activity exists there should be a study by the present organizations — be it municipal league, city planning association, or state real estate group — of the possibilities of fitting into the present scheme of state departments and bureaus even some small section specifically charged with carrying on educational work for planning. There are unofficial state or regional agencies in California, Illinois, Indiana, Iowa, Kansas, Michigan, New Jersey, Ohio, Texas, and Wisconsin strong enough to work toward this objective. In Connecticut, Missouri, North Carolina, Oklahoma, Oregon, and Washington there is great need for some beneficial central influence to bring out the full strength of local movements already auspiciously begun.

CHAPTER VI

EDUCATING THE PUBLIC TO SUPPORT CITY PLANNING

Local Voluntary City Planning Organizations

EVEN though a city may have an active official city planning commission, the need may be felt for some voluntary organization to assist the official commission in educating the public to support planning projects, as well as to serve as a reflection of public opinion and source of advice to the commission itself. In some cities a voluntary organization formed for the purpose of promoting the establishment of an official city planning commission, or for initiating the preparation of a comprehensive plan, may continue in the advisory capacity just suggested. These voluntary city planning bodies may take the form of large associations of citizens organized like any other civic association with officers and regular annual dues. Or there may be an advisory committee or council, perhaps appointed by the mayor, specifically for the purpose of advising the official city planning commission and broadening the scope of its educational work. In some cases a civic or commercial organization will appoint a city planning committee either to initiate planning or to coöperate with the official agency. In other cases there may be a federation of representatives of civic, commercial, and district improvement associations, to serve a similar purpose. Again special associations or committees may be organized to conduct campaigns for specific objectives such as zoning, a civic center, or park improvements. We can find several examples of all these forms of voluntary city planning organizations active at the present time. Some, however, are now only matters of history, having served their original purpose and failed to find leadership or backing for a continued existence. Naturally the greater part of the early voluntary associations — formed during the first fifteen or twenty years after 1900 — fall into the latter class, although a few of these still persist and are still performing valuable service.

One of these early city planning organizations is the Civic Improvement Association of Boulder, Colo., formed in 1903, and responsible for financing the Olmsted plan report for Boulder published in 1910. The

contributing members of this association have varied from 25 or 30 to 200 or 300, very informally organized, but held together by the secretary, Dr. Baird, for the whole twenty-six years of its existence. No official city planning agency developed from the plan of 1910; but, watched over by the Association, the plan has guided the growth of this university town along pleasant lines. The City Planning Association of Los Angeles organized in 1913 has about 200 members with an annual membership fee of $2.00 open to all, but special subscriptions were secured to form the fund for the Association's educational campaign to secure the civic center.

Much older than both these planning organizations is the City Parks Association of Philadelphia formed in 1888 to carry on propaganda for small parks and playgrounds. This has now become the local city planning educational organization, interested in the Philadelphia Region as well as the city, and noted for its strikingly illustrated reports of Philadelphia city planning projects. With the same executive secretary, whose continued distinguished service has extended over many years, is the Fairmount Park Art Association, an organization of individual citizens formed nearly sixty years ago to give statuary to Fairmount Park, but now, by changes in its charter, permitted also to undertake educational campaigns for improvements in the city plan of Philadelphia.

One of the largest and most active voluntary organizations is the Buffalo City Planning Association formed in 1920 and now having a membership of about eight hundred. In education of the public at large and in personal contacts with members of the city council, in publications and meetings, this association has played the leading part in promoting city planning in Buffalo and also in contributing to the formation of the Niagara Frontier Planning Association with which the Buffalo Association has shared a publicity agent. The leading example in the Southwest — almost in the country at large — of a group of citizens interested in carrying out a comprehensive city plan is found in Dallas where, since 1924, the Kessler Plan Association (succeeding a smaller organization of property owners interested in certain specific projects) has acted as a "selling agency" for the Kessler Plan for Dallas. This association has expanded the objectives of the Kessler Plan, coöperating with the official city planning commission, and has really become a clearing house for most of the community's civic thought and activities. In addition the association is constantly aiding in educational work in other Texas cities.

In Schenectady, N. Y., there is a Planning Association which has supported various improvements suggested by the official city plan commission. In Detroit there is no voluntary organization but the need for one has been felt. Proposals for a voluntary organization have also been made in Toledo but none has as yet been formed. In Johnstown, Pa., the city plan commission has done the work normally performed by a citizens' organization; and similarly in Chicago one has been unnecessary because of the great size of the official Chicago Plan Commission and its highly organized publicity work. In St. Louis a dozen years ago there was a citizens' committee but this has now become inactive, probably because it is no longer needed in a city where city planning is so well accepted and where the official plan commission is capable of handling educational work effectively.

Although the Buffalo City Planning Association includes a great variety of organization memberships, representing all sorts of district, religious, and civic clubs, we have to look to Cincinnati and St. Paul for examples of federated delegates from such organizations formed into a united body to promote city planning and advise with regard to programs. The original United City Planning Committee of Cincinnati was composed of delegates from thirty-two civic organizations, each organization voting its delegates as a unit, although each could name as many delegates as desired. This Committee,* now numbering about 125 members, was responsible for the establishment of the official city planning commission, for financing the making of the Cincinnati Plan, and in the early days even for financing the operation of the planning commission itself. It is the promoter and protector of the Plan, and is supported by yearly voluntary subscriptions from individuals, amounting to something less than $10,000. It is hoped that this budget will be nearly doubled in the near future through the adoption of some system of graded memberships, with fees ranging from $100 to $500 for honorary members down to perhaps $10 or more for individual memberships. Of different origin in St. Paul was the United Improvement Council, organized by representatives of civic organizations from every district of the city, to map out a comprehensive development program. The City Planning Board was called in to guide their activities, with the result that a $15,000,000 bond issue was passed in November, 1928, for plan improvements.

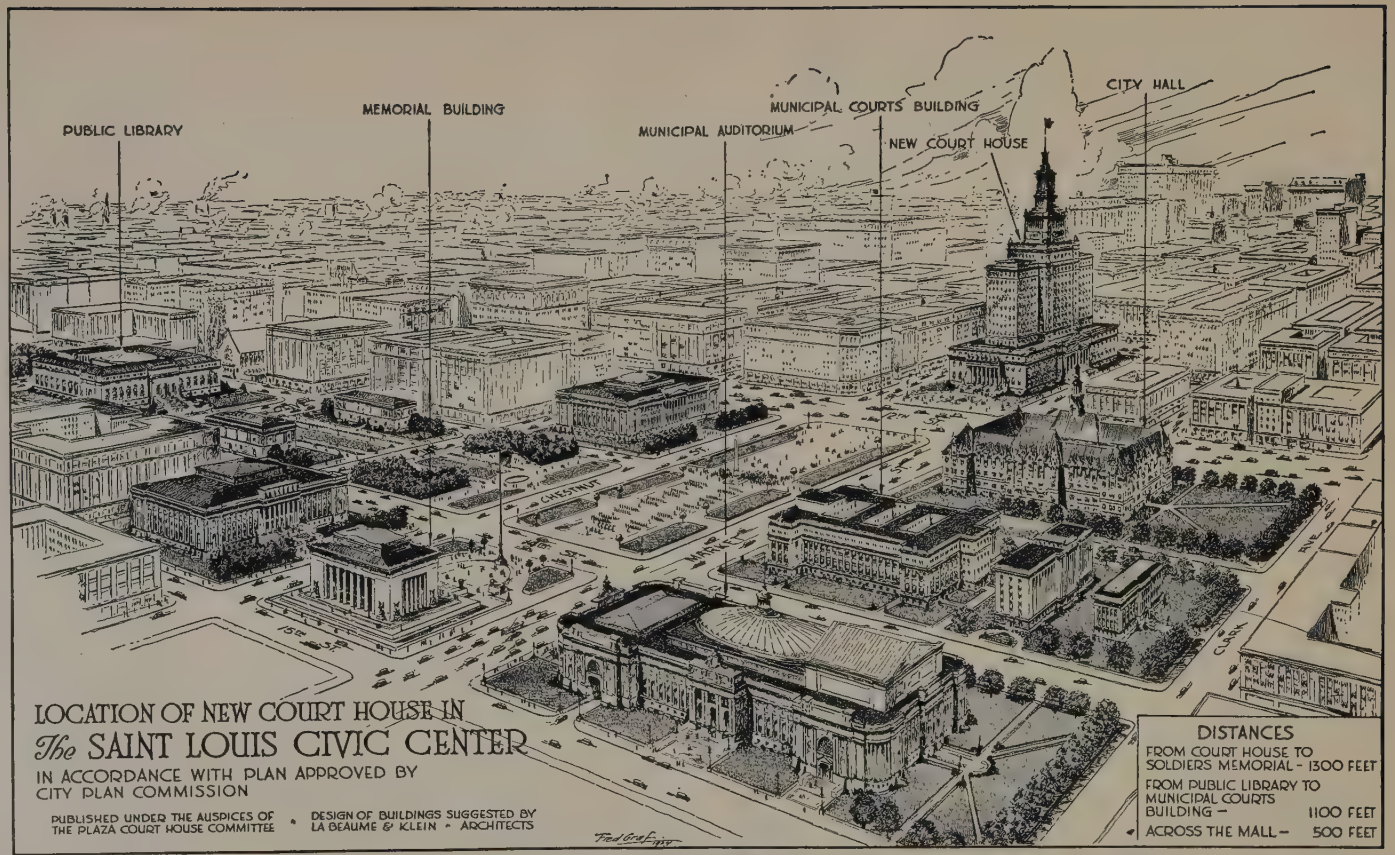
Almost in a class by itself for the magnitude of its work, the Citizens

* The title and scope of this Committee have just been enlarged. See mention pages 50–51.

Committee on City Plan of Pittsburgh was chartered as a municipal planning association and organized in 1918 to produce the Pittsburgh Plan, the early official planning commission having become inactive. The expense of preparing this plan was met by subscriptions from the corporations and individuals constituting the general membership of the Committee. As in Cincinnati, large sums were raised to secure comprehensive plan reports which, in the case of Pittsburgh, formed a series over a period of years, accompanied by periodical and other publicity literature cleverly adapted to arouse public interest and support. Since the reëstablishment of an official city planning agency, the Citizens Committee has continued its educational work and its bi-monthly magazine, coöperating with the official authorities and extending its influence into the whole region.

In Jacksonville, in Florida, a state where enabling legislation is deficient, each civic organization appointed a member to act on an advisory city plan committee (totaling 21), which has a sort of semi-official status and which is now instrumental in securing the preparation of a comprehensive city plan for the city. Likewise in Savannah, Ga., a Citizens' Committee of twenty-five or thirty members grew out of Rotary Club activity, in 1925, and financed a preliminary planning survey from which, as yet, nothing further has resulted, although the Committee still exists and promotes a certain amount of publicity advocating planning and zoning. A distinguished example of a committee formed to secure comprehensive planning is the "Committee of One Hundred on the Federal City" which, with the support of the American Civic Association, was largely instrumental in the establishment of the National Capital Park and Planning Commission.

There are several advisory committees officially appointed for the purpose of aiding the work of official city planning commissions. In Altoona, Pa., this is called "The Advisory Committee to the City Planning Commission" and consists of 55 citizens selected by the mayor. They raise no money — this being done by the City Planning Commission — but they give moral support, they study various plan phases through special sub-committees, and they have proved valuable in selling planning ideas to the public in Altoona. In White Plains, N. Y., while the plan was being prepared, there was a Committee of Seven called "The City Plan Committee" which helped to popularize the idea; and there is now a permanent Advisory Committee, largely of city officials, and primarily to advise the Bureau of City Plan and the Planning Board.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Used in the campaign to secure citizen approval of the Plaza Site for a key building in the St. Louis Civic Center

In Tulsa, Okla., the mayor recently appointed a "Civic Improvement Committee" to study and report on the immediate needs of the city, choosing as representatives on the committee the president of the city plan commission, the park superintendent, the city engineer, and the county engineer. There is a "Civic Council" in Kenosha, Wis., which sponsors city planning and other civic projects. The mayor of Syracuse, N. Y., has an unofficial advisory council composed of the city's largest taxpayers who go over with the mayor all large city expenditures for improvements, so that when the advisory council approves these as necessary, the mayor has a strong argument to lay before the public. In Rochester, the city manager has appointed five men as a nucleus of an advisory organization with authority to enlarge the body as much as they wish. In 1925 the mayor of Boston appointed an Advisory Committee on Public Improvements to secure intelligent coöperation of the important groups directly affected by city planning enterprises, along the lines of the previous successful advisory committee which helped "put over" the Boston zoning ordinance; and this Committee stands ready to help when called upon.

In several other cities special citizens' committees have been organized to promote the passage of zoning, such as the "Committee of 100" in Indianapolis and a similar committee in Evansville, Ind., where the committee, although now inactive, is ready to come to life if needed for some other phase of promotional work. In Louisville, Ky., the citizens' committee was organized to secure the passage of enabling legislation, and functions only during sessions of the State Legislature. In New Jersey the Zoning Campaign Association was organized in 1927 to secure the passage of the constitutional amendment. Both Milwaukee and St. Louis have had special committees to sponsor civic center plans. The Milwaukee "Citizens' Planning Association" had a brief existence for this purpose. In St. Louis an association composed of representatives of the American Legion, trade and labor organizations, and women's clubs, "sold" the plaza idea against the combined influence of the Downtown Property Owners Association and all the other organized commercial and financial organizations. There is also in Milwaukee an organization of downtown property owners called the "Citizens' Planning Committee" with 32 members which acts only on projects concerning downtown property directly. In Oklahoma City an organization formed to work at cross purposes to the official city planning commission on its projects for railroad relocation has since been abandoned following the

victory of the planning commission's ideas. In Portland, Ore., to secure the passage of the bond issue in 1928, the "Greater Portland Street Widening Association" was formed, employing a paid manager, for a highly organized and successful campaign.

The voluntary work of committees of chambers of commerce and other civic-commercial organizations has formed a substantial part of the city planning movement. Such a committee in Lincoln is keeping city planning alive and in San Diego the "Civic Committee of the Chamber of Commerce" is a cross section of the city's life, representing every profession and every civic organization, active when needed to promote planning and responsible for securing the comprehensive plan for the city. The city planning committees of the city clubs of Portland, Ore., and Denver have been valuable aids in educational work.

Among the various types of voluntary organizations just discussed there is none exactly suited to the needs of a city not yet provided with an official planning agency but which is interested and willing to appoint an official body. Such a committee was found in Tacoma, Wash., where the mayor appointed "a representative committee of fifteen free-holders to study city planning, its various types and benefits to be derived, and to bring back to the City Council recommendations as to type and scope of planning commission desired." Some of the leading and most progressive men of Tacoma were members of this committee, calling forth support from various organizations in the city. The success of the committee in Tacoma in bringing about the establishment of the recently appointed planning commission suggests how such a committee can arouse public interest and confidence and pave the way for an appropriate official agency, which will thus be enabled to begin its work under favorable auspices.

We have already seen in Chapter III the sources of local support on which planning commissions in various cities have been able to count, and in Chapter IX are found some comments on the public attitude toward comprehensive city plans as revealed during recent years.

Educational Work of Official Agencies

The educational activities of official planning agencies depend both on the aptitude of the staff for publicity work, and on the funds available for publications, exhibits, lantern slides, or other forms of educational material requiring expenditure. Even where funds are very limited, favorable relations established with the press and skill in selecting ap-

propriate news and positive objectives to be featured may secure a large amount of desirable publicity with no expenditure at all. The press publicity obtained in Evansville, Ind., shows how effectively a wide-awake secretary may keep planning before the local public.

Educational work by official agencies has taken practically every form discussed in the next section of this chapter. The Chicago Plan Commission has probably developed the most highly organized system of public education, both as to general planning ideas such as those in the school text book "Wacker's Manual" and as to specific plan projects to be "put over." The Denver Planning Commission also has had publicity work highly organized, featuring a staff of speakers for whom a special "Speakers' Manual" has been prepared. The Boston City Planning Board has for many years conducted successful educational work, that for the passage of the zoning ordinance having been admirably described in the Board's zoning report of 1924. The City Planning Commission of Johnstown, Pa., has conducted one of the most continuous and fruitful campaigns for "making the city plan effective" * through wide public understanding. The St. Louis City Plan Commission's long and successful experience has much to teach other cities. Los Angeles is another city where the official planning commission has been the leading "selling" agency. The most recent publicity work of the National Capital Park and Planning Commission in Washington is not only local but national in appeal, and should be recorded in its later reports.

Although the planning commissions of many other cities might be cited for distinction in certain lines of educational work, if commission secretaries will study the work in the cities just mentioned, together with that of outstanding unofficial bodies such as the Citizens Committee on City Plan of Pittsburgh, The Buffalo City Planning Association, the United City Planning Committee of Cincinnati, or the Kessler Plan Association of Dallas, an almost bewildering variety of methods will be found, from which may be chosen those most appropriate to the particular place and occasion.

Establishment of favorable relations with district organizations and with civic leaders throughout the city and region is one of the most urgent aspects of the educational work of official agencies. Where no organized voluntary city planning association or civic council exists to act as a mouthpiece for scattered local interests, the planning commission should make it especially a business to know local leaders and to secure

* See article of this title by Leo J. Buettner, secretary, in *American City*, Apr., 1922.

their confidence and advice. Contacts with all cross-sections of the community's life are needed to make the city plan representative and effective.

In the course of its work, the planning commission is usually charged with the preparation of annual, special, or comprehensive plan reports. The educational value of published city plan reports has occasionally been debated. It is a nice question whether a large, handsomely illustrated report will appeal to civic pride or whether it will create hostility by a suggestion of large expenditures. The expense of printing a sufficient number of large reports may be great if they are to be distributed as widely as it is desirable for the plan to be known. On the other hand, unless a plan report is attractively illustrated by pictures as well as plans, frequently it is not understood or appreciated. Annual reports, too, are apt to be dull if there are no illustrations to break up the text. When annual reports of planning commissions are not published in separate form but included in a compiled volume of reports such as Cincinnati's "Municipal Activities" (mentioned in Chapter X), the use of some striking illustration is particularly desirable.

It is our opinion that if a city is in a position to undertake the preparation of a worthy comprehensive plan, publication of a report in attractive and appropriate form should be considered as part of the legitimate expense of having the plan prepared. The city planning commission has thus a dignified record of its proposals to which it can refer, and if the plan is really the result of coöperative work on the part of officials and citizens as it should be, there is always a certain authority in the printed book which may prove helpful in a pinch.

Although the preparation of plan reports may be the job of consultant or of planning commission, or both together, the local circulation of reports is the job of the commission and a very important phase of its publicity work. It is not enough that the commission should distribute the reports merely on request as some cities have done. The constructive method is to mail copies to a selected list of civic leaders. Every active planning commission, whether or not issuing a regular bulletin, should have such a mailing list compiled not only for annual or special reports but for all sorts of printed matter required by occasions. When Denver had its major street plan report in 1928, 4000 copies of this pamphlet were printed, of which 1000 were mailed to a selected list of leaders and many more distributed through civic organizations. The Portland (Ore.) major street system report was sent to the mailing list of 500 names used

for the monthly bulletin, and in addition to mailing lists of interested organizations, totaling about 3500 copies. The Schenectady street plan was mailed by the chamber of commerce to all its members, the chamber having paid for 1200 out of the 3500 copies printed. In Durham, N. C., the plan report was also distributed largely through the chamber of commerce.

In Seattle copies of planning reports are sent to members of organizations represented on the planning commission, which is a large one. In Los Angeles, 600 copies of the annual report for 1928 were sent to a mailing list of city officials, members of other planning commissions in California, and members of local civic organizations as well as to the exchange list of the municipal reference library, — the wide range of recipients suggesting the two audiences among which reports may be circulated, the local public and the many interested officials and perhaps libraries of other cities. It is fortunate that some of the larger planning commissions can afford to print more copies of reports than are needed for local use — those of Chicago, for instance, have been distributed all over the world — because as samples for study such reports are invaluable.

The Cincinnati Plan, an expensive volume, was distributed to city officials, civic organizations, schools, and libraries, and also on request to interested citizens and real estate operators. The Duluth plan report went to a mailing list of prominent citizens, architects, realtors, and engineers. Of the El Paso Plan, 2500 copies were printed and many were sent out to people of prominence and members of civic clubs. When the "Comprehensive Plan for Greater Johnstown" was printed in 1917, only 250 copies were ordered and placed in the hands of a very carefully selected list of civic and industrial leaders, but this number proved far too small, especially as an appropriation to reprint a report is difficult to obtain. Of the "Plan of Saint Paul" of 1922, 5000 copies were published, of which about 4000 were distributed by giving one copy to each member present at the series of talks before luncheon clubs where the plan was explained. In Grand Rapids, a novel method of circulation was employed: copies were sent to fire stations whence firemen off duty distributed them to every home in the city. A second call was made if necessary to hand a copy directly to the resident. It will be remembered that this Grand Rapids report "Planning the Future of Your City" was presented in a very popular form, which coupled with the very wide distribution, caused an unusually favorable general reaction.

Although it is not possible on account of limitations of space to dis-

cuss adequately, either here or in Chapter VII, the various types of plan reports, it is proper to suggest that there is much in the example of Chicago in 1911 and of Des Moines in 1927 in getting out brief popular editions of reports to be more widely circulated than the complete report could possibly be. Of course the Chicago Plan was an "art book" of monumental character, but the Des Moines Recreation Facilities report in full form was merely typical of the better presented reports in many cities. The smaller condensed edition, still appealingly illustrated, could be sent to a far larger mailing list and did bring to hundreds of citizens in Des Moines a clear notion of how recreation needs could be met.

We have to-day a sufficiently large number of published reports from cities well known for progress in city planning to be able to assure ourselves of their very considerable value in planning commission work, if they are presented and distributed appropriately.

Although public hearings on planning projects are held primarily to comply with the requirements of the law, nevertheless hearings, such as those held before the passage of a zoning ordinance, are an effective means of educating public opinion. Usually a series of hearings held in the various neighborhoods of the city gives an opportunity for local views to be aired and for specific arguments to be advanced to meet specific objections, at the same time affording an opportunity for planning commission representatives to explain the comprehensive principles involved. Hearings, too, have news value and reports of them are likely to be read in the daily papers throughout the city.

Forms of Publicity and Educational Work with Adults

Publicity work for city planning has taken the same great variety of forms which have been used in publicity for other forms of civic and social work. There is no better manual to guide those who are undertaking publicity for city planning and who wish to choose appropriate vehicles for their efforts, than the book *Publicity for Social Work* by M. S. Routzahn and E. G. Routzahn, recently published by the Russell Sage Foundation, which contains an endless number of examples equally suggestive for methods in the planning field. Looking over the material assembled during our own field study, we find represented periodical city planning bulletins, press clippings, fliers and pamphlets, primers of city planning, planning reports in special form for popular consumption, leaflets circulated to secure the passage of bond issues, even a questionnaire issued (in Dallas) to secure popular opinion on features of the planning program,

Zoning Will Prevent This

Courtesy of Evansville Courier and Journal

A Cartoon used in the Zoning Publicity Campaign at Evansville, Indiana

AN APPEAL TO THE PUBLIC

library book lists, as well as memoranda relating to lectures and illustrated talks, moving pictures, radio broadcasts, exhibitions, prize contests, even the participation of citizens, young and old, in certain forms of survey work preliminary to planning, which undoubtedly had an even greater educational value.

PERIODICAL CITY PLANNING BULLETINS or little magazines have proved an effective means of keeping up public interest. *Progress*, published about every two months to promote the Pittsburgh Plan by the Citizens Committee, is now in its sixth volume, appearing in printed form often entertainingly illustrated with cartoons and filled with readable matter. Similarly in printed form *City Facts*, published by the Buffalo City Planning Association four times a year, is in its sixth volume, frequently containing illustrations and always full of timely planning news both as to Buffalo projects and experience elsewhere. The monthly bulletin of the Philadelphia Regional Planning Federation is now a printed magazine called *Planned Progress* (superseding the mimeographed *Highlights*), and the Los Angeles regional bulletin, in mimeographed clip-sheets, already referred to, comes out even more frequently. The city planning bulletins of Portland, Ore., Sacramento, and Denver are also mimeographed. The Portland monthly is called the *Plan-It* and maintains a high standard of interest. The Sacramento bi-weekly bulletins have only recently begun, being sent regularly to about seventy-five realtors, city officials, bankers, civic organizations, and others. *Denver Planning* began early in 1928 and like the *Plan-It* contains not only news of Denver projects but also apt quotations relating to city planning ideals and excerpts from planning news in other cities.

The regular organ of the city government in Denver, *Denver Municipal Facts*, has always devoted much space to city planning, and publishes fine photographs of the Denver region. Similarly the *Baltimore Municipal Journal* has carried much information about public improvements, and the *Toledo City Journal*, which is an important source of information on current city planning news in Toledo, has expressed its willingness to devote a page to planning in every issue were there available "copy." *Civics for Houston* is a more recent local publication which features city planning among other phases of civic improvement. Some of the city club bulletins, especially those of Portland, Ore., and New York City, keep a large number of readers informed about city planning; and members of chambers of commerce are reached in such cities as Boston and New York through the local chamber magazines, while in Cleve-

land the Citizens' League's *Greater Cleveland* frequently devotes space to planning items.

In the periodical bulletins devoted entirely to city planning there should be a balance of local improvement news and of citations of experiences elsewhere which may serve as effective arguments applicable to the local situation. The form of presentation is important: skillfully worded captions and apt illustrations can often catch and hold the attention of people who dislike to read. If pictures are too expensive, the Los Angeles clip-sheet and the *Plan-It* of Portland, Ore., are excellent examples of what can be done with an unillustrated mimeographed bulletin in presenting city planning topics in an appealing way. Cartoons are frequently more effective than pages of text, but these can do even greater good in more general periodicals or the daily press.

Of all means of publicity, ARTICLES IN THE DAILY AND SUNDAY NEWSPAPERS are the most common and frequently the most efficacious. The Chicago Plan Commission records in its fifteen-year report that the Commission has had the unswerving support of every newspaper for the whole period. The series of fifty-two newspaper articles on city planning which Mr. Milton B. Medary prepared for the New Orleans press was instrumental in educating public opinion to demand the appointment of the official City Planning and Zoning Commission. In Akron, O., the *Times* ran a series of articles telling what other cities were doing in city planning; and, also in 1926, the Rochester *Democrat-Chronicle* made a front page feature of a long series of city planning articles under the title, "City Planning: Rochester's Next Important Task." The employment of a newspaper man by the Buffalo City Planning Association jointly with the regional Association has assured good press coöperation in that region. The *Dallas News* has already been mentioned for the generous space it has given to city planning and for its leadership in the movement of the Southwest. The Little Rock *Arkansas Gazette* is active in promoting comprehensive planning for the city; and in Spokane, the press is aiding in arousing public interest in favor of zoning. In Detroit the newspapers have been glad to print any "story" prepared by the City Plan Commission and the Board of County Road Commissioners, — in fact reporters call for news every week. In Duluth a regular city planning column on the weekly builder's page is being initiated. It is reported that the press of Fort Wayne, Ind., has carried at least one article every week for seven years written by one of the sponsors of the city anning movement (Mr. Robert Hanna) who feels that, like advertising,

city planning news articles must be kept on continuously. The *Milwaukee Journal* has a regular civics section containing two or three times a week some article or news item relating to city planning.

No phase of planning has aroused more press interest than zoning especially where controversies have arisen in the course of preparing and passing the ordinance. In New Bedford, where Sunday feature articles on planning are frequent, one newspaper published fifteen full-page zoning map sections, one each day, at the time the ordinance was being passed. Other cities where the press has been especially coöperative in furthering educational work for city planning are Baltimore, Cincinnati, Denver, Houston, Kansas City, Mo., Memphis, Minneapolis, Oklahoma City, and Tulsa, Providence, St. Louis, St. Paul, and Washington, D. C. It is interesting to note that in 1923 the Pennsylvania Bureau of Municipalities issued a bulletin, "Attitude of the Pennsylvania Press toward City Planning," which records much favorable comment. The City Plan Committee of White Plains, N. Y., paid advertising rates on the publication of the whole city plan in the *Daily Reporter*, in supplement form, which reached a much larger number of readers than could the final separately printed book. In some cases, briefer plans have been printed as supplements to papers as news features. Such an attitude is fortunately rare as that which was reported from one city on the Pacific Coast to the effect that newspapers were a little suspicious that plan commission news was propaganda.

The advice given in the Routzahn book in the chapter "Social Work and the Newspaper" should be read and followed by secretaries of planning commissions who may not be trained in publicity work and who would profit by knowing more about newspaper style, newspaper requirements as to what constitutes news, and what would be suitable for illustrated feature articles.

Of EDUCATIONAL PAMPHLETS issued to promote city planning none have been more widely used than the two "primers" published by the United States Department of Commerce. Some 15,000 copies of the City Planning Primer and some 80,000 copies of the earlier Zoning Primer have already been circulated throughout the country and have been used not only in informing city legislators what city planning and zoning mean, but also as adjuncts to local literature in connection with local campaigns, as for instance in West Lafayette, Ind., where 1500 copies of the Zoning Primer of the Department of Commerce were delivered at house doors, along with the zoning map and ordinance just before the open meeting at

which the consultant explained the details. It is interesting to note that the next week the ordinance was adopted by the council with no objections. The city planning primer issued in Indiana, already referred to, has had wide circulation in the State, as Mr. Herrold's "Monograph" has had in Minnesota.

Frequently little FLIERS or small popularly-written pamphlets either on the general subject of city planning or on some particular project up for vote, may be distributed very widely, mailed to membership lists of civic organizations or given out at public meetings. "A Big United Program for Dallas City and Dallas County for the Year 1927" was such a publication, and similarly "A Catechism of Zoning" for New Rochelle, the folder "Whitten Plan a Measure of Economy" in Providence, the circular "Civic Center Facts" for the Milwaukee campaign, or "Let's Get Ready for 200,000 in 1930!!" distributed in Oklahoma City before the successful $10,000,000 bond issue. In the Philadelphia fund-raising campaign a little booklet, "Regional Planning in The Tri-State District — What — Why — Who — How," was widely distributed. Los Angeles has produced several very effective fliers, such as the "Plan or Patchwork — Which?" and the "If" card of the Regional Planning Commission. A flier "City Planning Means Happier Homes" was distributed at the Home Show in Evansville, Ind. Many people — especially householders who do not receive quantities of mail — will open and read with interest a small attractive flier, to whom an official report would remain a closed book.

All the active citizens' committees, and the official commissions which have developed educational work to any considerable degree, have made public LECTURES an important part of the publicity program. Few perhaps have had organized speakers' bureaus, as at Denver, Philadelphia (Regional Federation), and Pittsburgh (in the latter city now discontinued); but lectures totaling many hundreds have been given in dozens of cities before neighborhood improvement associations, luncheon clubs, district or club meetings, women's clubs, and pupils in the public schools. Sometimes a speaker's committee of the chamber of commerce may aid the planning commissions, as in San Diego; sometimes the consultant or his assistants may be able to make a popular presentation of the subject before a large gathering, or perhaps a business-like talk before a group of representative taxpayers. It should be remembered, however, by planning commissions that a man who is technically competent may not command approval as a speaker, and that a poor public appearance may damage the popularity of planning.

A number of planning commissions have collections of LANTERN SLIDES showing local conditions and also American and foreign examples. The remarkable series of slides assembled by the Westchester County Park Commission showing the "befores and afters," suggests what other commissions may aim at, although they may not be so fortunate as to have an equally persuasive speaker to explain the pictures. In Johnstown, Pa., slides were made of all pictures and plans in the report, and hundreds of lantern lectures were given, even in sick-rooms with the neighbors gathered about. The slides showing the planning opportunities in the Washington region and the work of the National Capital Park and Planning Commission are used almost every other night.

One of the most striking bits of news about planning lectures came from Los Angeles. Miss Mary Pickford of movie fame made a talk at the County Planning Association meeting at Monrovia on the need of community planning and civic esthetics, — reported a very fine talk and undoubtedly well attended!

The MOVIES, however, have not yet been used to any great extent in planning publicity work. Most appropriately in Los Angeles a motion picture camera has been presented to the city planning commission and national producers have arranged to transfer approved films to standard form, to be run in movie theaters and colleges throughout the state. Good and bad examples will be contrasted, and "things happening" and telling titles are planned to put over the ideas. Three movies are in preparation, of which one should soon be completed. The historic example of a planning movie was the Chicago Plan Commission's "Tale of One City," shown in many cities in addition to Chicago. The American City Bureau had a zoning film used to good effect in Evansville in the planning commission's campaign for zoning. Several years ago during the height of activities of the San Francisco Bay Regional Planning Association, an Alexander production, "The Pay-roll Dollar," was prepared with the Association's advice which showed desirable planned features of a city and how public money could be apportioned to secure these. A movie of the Potomac River project has been made for the National Capital Park and Planning Commission. For a less popular purpose is the motion picture made by the Springfield (Mass.) Planning Board showing traffic intersections in action. Cincinnati did not undertake moving pictures as part of publicity work, judging them too expensive.

When a planning commission can secure the facilities of the RADIO for brief talks, the invisible local audience far exceeds any which could be

reached in any other way. To promote the regional plan fund in Philadelphia a number of radio talks were given. About two years ago the Milwaukee *Journal* broadcast ten talks on city planning, featuring general principles with local application; but here a difficulty arose because if the applications were too local, more distant listeners would lose interest. Doubtless this difficulty has prevented the wider use elsewhere of radio talks as part of city planning campaigns, although in Los Angeles, very successful use has been made of this most modern of all methods. For two years and a half Mr. Gordon Whitnall of the City Planning Commission of Los Angeles broadcast for a half hour each Saturday, and the quantity of resulting "fan" mail attested the interest aroused; on certain fixed dates, answers were given to questions sent in. Education by radio is also featured by the University of Southern California in "radio extension" courses.

Exhibitions of city planning have been reported in connection with Home Beautiful shows and State Fairs, in Des Moines, Evansville, Indianapolis, Grand Rapids, San Diego, and Wichita. At an industrial show in Duluth a planning exhibit aroused interest and many questions. The Citizens Committee contributed to an exhibit in Pittsburgh at the Carnegie Institute in 1925, just before the International Exhibition in New York. An exhibit attempted in the auditorium of the St. Paul Public Library failed to attract visitors. In the early days, the *American City* exhibit was used as a basis for adding local material. Frequently now exhibits are held in connection with state conferences on planning or gatherings of engineers or realtors, as well, of course, as at National Conferences.

An effective method tried by planning commissions in several cities is to arrange in a department store window an attractive display of plans and pictures. One used in Detroit is here illustrated. In Denver two different window displays, changed weekly by the planning commission, were maintained for a period of eight weeks. Fort Wayne, Johnstown, and Knoxville have also made use of store windows for exhibiting zoning maps and other drawings.

In Los Angeles an effort is made to prepare poster effects which will be appealing and intelligible. At San Diego a permanent lot of exhibit material is available for loan, and similarly at the Philadelphia Regional Planning Federation for use throughout the region.

Great skill is necessary in selecting and preparing exhibit material from that of specialized character assembled by planning commissions in the

Courtesy of Detroit City Plan Commission

Window of Ernst Kern Company

STORE WINDOW EXHIBIT OF CITY PLANNING, DETROIT

course of their regular work. Nothing speaks as clearly as pictures, realized in Akron, where a large number of photographs of city defects were assembled and shown during the campaign for zoning; and in Washington, where the National Capital Park and Planning Commission has prepared a remarkable series of mounted pictures showing the past and proposed development of the National Capital. The advice given about exhibit material in the Routzahn book *Publicity for Social Work* is valuable both as regards window displays and more ambitious exhibits or booths in connection with shows and expositions.

PRIZE CONTESTS have been used as parts of educational campaigns in several cities. The "City Beautification" contests in Evansville, Ind. (notable for its report "The City's Appearance" in its series of planning studies), have aroused popular interest, prizes being awarded for the best home grounds, churches, gasoline stations, and so on, — the whole campaign conducted through the City Plan Commission. A principal recent activity of the Buffalo City Planning Association has been a backyard playground contest among children of the city. The Philadelphia Regional Planning Federation held a prize contest for the best pictures of despoiled spots in contrast to natural beauties preserved, which secured a number of pictures desirable for publicity use.

The prize offered by the United City Planning Committee of Cincinnati for the best thesis written in the University of Cincinnati on the relation of city planning to social welfare was not considered a success. School essay contests have, however, been very effective publicity, and several will be found described later in this chapter.

The most direct methods of approaching citizens on a live planning issue was reported from Los Angeles, where a battery of TELEPHONE girls called everyone in the city to secure reactions on the civic center scheme, while the mailing of explanatory folders was going on. No attempt was made to sell the scheme, but all answers were recorded. Since this roll call showed a two-to-one opposition at the start, the imperativeness of this additional publicity work was made apparent.

The educational aspects of citizen participation in survey work for city planning, referred to in Chapter VII, are brought out in Glynn County, Ga., where a large number of working committees became thoroughly interested.

There may be many more ways in which publicity has been secured for planning. The fullest description of educational work will be found in the late Mr. Walter D. Moody's book *What of the City?* representing

the Chicago work to which he had given his life. Mr. R. W. Blanchard of Evansville — a city frequently mentioned in this chapter — in response to numerous inquiries prepared a typewritten digest of the methods used in Evansville, circulated to advantage in other cities. There will be found in the Proceedings of the National Conference on City Planning a number of valuable papers, especially by Dr. John Nolen, on educational work for city planning which deserve careful reading. And above all, the Routzahn book should be studied and restudied.

Direct Results from General Educational Work

In Chicago where the most complete system of educating the public in city planning has obtained, the criterion of success is seen in the citizens' votes on bond issues: up to April, 1928, when the political situation caused a defeat, all bond issues for planning projects, totaling $296,000,000, have been passed. The $87,000,000 bond issues of 1923 in St. Louis resulted from the persistent skillful work of the City Plan Commission. The educational work of the United City Planning Committee has developed an exceptional city planning consciousness in Cincinnati. While ten years ago in Detroit there was strong opposition to city planning, the people there to-day understand it and want it and respect the City Plan Commission, which now regards publicity as one of the most important features of its work. In Johnstown, Pa., where 80 per cent of the improvements proposed in the Johnstown Plan are either accomplished or under way, the majority of people are informed and advocate the plan. In the neighboring city of Altoona, citizens are thoroughly convinced of the value of planning and zoning. Especially in Memphis, there is general public acceptance of planning, and from Minneapolis, too, comes a report "everybody generally understands and appreciates the work of the City Planning Commission." The publicity campaign in Portland, Ore., has greatly increased the prestige of the planning commission, members of which are now willing to fight for projects proposed. In Schenectady publicity work has resulted in the adoption of requested legislation and required appropriations by the common council. The educational work in both Tulsa and Oklahoma City has brought about a very general favorable understanding on the part of citizens, and in Sacramento the planning commission work is gradually moulding public opinion to recognize the commission as an established branch of city government.

In Evansville, where — as we have seen — the educational work with

both adults and children has been unusually complete, a marked improvement in the appearance of the city is reported as well as general knowledge that there is an active city planning commission which commands increased coöperation. It is interesting to find that there is a feeling in Pittsburgh that the work with younger citizens has been far more worth while than work with adults. In Toledo, very expensive publicity prior to the proposed bond issue of 1925 is said to have created unfavorable public opinion, and contributed to the defeat of most of the issue, as we see in Chapter VIII, — one of the very few instances of excess publicity encountered during the study tour. In Dallas, Tex., where educational work in the last few years has been almost more striking than in any other city of the country, direct results have been seen in popular support of bond issues. In Denver, people who have opposed planning are swinging from antagonism to neutrality or support through the very active campaigns of the planning commission.

Taken by and large, there is no doubt that in addition to the very direct results seen in many cities in the form of support for bond issues or particular projects, there is a steadily increasing "planning consciousness" in those cities where patient, effective, and continuous educational work for city planning has been carried on during a period of years. It is frequently when planning ceases to be spectacular and becomes subconsciously accepted, that the greatest and steadiest progress may be expected.

Teaching of City Planning in Public Schools

In the paper "Youth and City Planning" * Dr. Justin F. Kimball of Dallas has well expressed the increasingly accepted proposition, that, since youth is the time when ideals are formed, the vital problems involved in city planning should be set before the active young minds of students before they meet these problems as voting citizens. Chicago was the first American city to prepare a special school textbook of city planning which was published in 1912. This book, called *Wacker's Manual of the Plan of Chicago*, has been revised three or four times and is now used in eighth grade classes in a required course in civics. Dr. Kimball's own book *Our City — Dallas*, prepared especially for use in the Dallas public schools, is the textbook of civics in all seventh grade classes. *Citizenship in Boston* is the textbook for civics classes containing a chapter "Boston Planning Board a Potent Influence" based on reports from Miss

* *City Planning*, Jan., 1928.

Herlihy, secretary. Similarly *Buffalo's Text Book* prepared by Mr. R. W. Elmes, contains interesting sections on city planning; a new edition is just out. Of the previous edition, the Buffalo schools purchased some 7500 copies to sell to students at fifty cents each. The textbook *Our City — New York*, 1924, prepared coöperatively by pupils in the high school civics classes under the direction of Mr. Frank Rexford, has a most excellent section, "City Planning and Civic Beauty." In a considerable number of general textbooks of civics for public school use, there are one or more chapters on city planning or phases of planning such as streets or parks, so that we may safely assume that an elementary conception of city planning is presented to a far larger number of children than those who have as yet used specially prepared local textbooks.

Largely through the influence of the California Real Estate Association a school manual of city planning for use in California has been undertaken, being prepared by Mr. Bryant Hall of the Los Angeles Regional Planning Commission. Mr. W. E. Stockwell of the El Paso Plan Commission has a school manual in preparation which may be ready within a year. Similarly in Roanoke, Va., a textbook is being prepared by the city planning commission.

The Indiana City Planning Primer already mentioned has been extensively used in the schools of Evansville, Ind., but it was found that this primer was too advanced for grade schools where now instead copies of Evansville planning reports are used as an object lesson, while the primer is used in the high schools to good advantage. In Toledo city planning is taught in both elementary and high schools; and during Achievement Week in 1927 a special program was prepared by the county planning commission, for use in the schools, including lecturers from city offices. In Johnstown a copy of the comprehensive plan has been placed in each school, and city planning principles are taught in civics classes, but detailed project teaching is decreasing as the projects are carried out. In that city it has been felt that a textbook would be too cut and dried, cramping the pupils' initiative. In Springfield, Mass., also the comprehensive plan report is used for purposes of instruction throughout the schools, one instructor who has charge of social science helping to direct all of the planning instruction. In Kenosha and Madison, Wis., again, city planning is taught in both grade and high schools.

The interesting work in the high school of Melrose, Mass., is already familiar to many through accounts * of the participation of high school

* *American City*, December, 1924, by Mrs. Osgood, Chairman of the Planning Board; and *City Planning*, October, 1928, by Mr. McPheters, instructor in civics.

pupils in the preparation of the "present use" map of Melrose, needed for the zoning ordinance, as well as subsequent work on smaller projects. Several other cities reported study of city planning in high schools only, among them Duluth, Grand Rapids, Oakland, San Diego, Des Moines, Los Angeles, Milwaukee, Minneapolis (where many students visit the planning commission for information), and Tulsa. In St. Paul, the engineer of the City Planning Board talks once a year at the high school, and a number of other cities, notably Toledo, report special lectures on planning subjects by outside speakers.

In Denver city planning is taught in the junior high school in connection with civics courses, and the pupils prepare actual sketch plans of civic centers, street and park systems, or station plazas. The secretary of the Denver Planning Commission instructs the teachers who give the courses. Other cities where city planning is a junior high school subject are Norfolk, Va., Wichita, Kan., and Oklahoma City.

In addition to Chicago and Dallas where planning is an elementary school subject, we find that Cincinnati confines this instruction to the grades, in this case even starting work in the kindergarten. A most entertaining account by Mr. R. J. Condon, Superintendent of Public Schools, of the model village built in a Cincinnati kindergarten, may be found in *City Planning* for January, 1927, which also describes the unpublished manual of suggestions for the use of the Official Plan by teachers in the public schools. The suggestions regarding the preparation of such a manual given in this article deserve careful study by planning commission secretaries and educational authorities considering the introduction of planning into the school curriculum.

In a number of cities, prize essay contests have been held in the public schools to stimulate interest in planning, both among the children themselves and among the parents who inevitably become interested. One of the earliest and most successful of these was held in Johnstown, Pa. In Norfolk, Va., prizes were offered by the city planning consultants for the best essays by school children, white and colored; and similarly within the past year essay contest prizes have been offered in the Jacksonville, Fla., schools, both high and junior high. In Topeka, Kan., there was a school essay contest during the preparation of planning studies by an outside consultant. In Portland, Ore., the high school essay contests have been very successful, each time devoted to a planning subject of current importance. In addition to cash prizes a cup is given to the school the winner attends. The Grand Rapids plan report has

been used as the basis of a high school essay contest in that city; and a similar contest is being considered in Duluth, where city planning is now taught in the high school, and where it was suggested that special lectures preceding such contests would increase their effectiveness. Prize essay contests have been held occasionally in the public schools of Providence, R. I., and Schenectady, N. Y.; and in the Niagara Frontier region recently a prize essay contest was held in preparation for a popular referendum on a question of appropriating funds to establish planning in Lockport. Some 1700 copies of the Department of Commerce City Planning Primer were given out to junior high school students. In Pittsburgh the Better Traffic Committee initiated, in November, 1928, a "Traffic Essay Contest" open to pupils in the public schools, in connection with which many detailed mimeographed instructions and suggestions were issued to pupils and teachers. In Little Rock, the Real Estate Board sponsored a "Know Your City" contest among school children which resulted in a little pamphlet "Know Little Rock" including the topic city planning. In Melrose, Mass., prizes were offered for the best essays on zoning at the time the ordinance was being prepared.

Especially in a smaller community where many other means of publicity might be out of reach of a planning commission, the school essay contest would seem to offer an exceptionally appropriate vehicle for conveying information about city planning, incidentally causing the public library to equip itself with information for pupils or parents to refer to. The innumerable questions which children engaged in preparing essays may ask at home are found a fruitful subsidiary means of attracting adult attention. Moreover the local press notices are sure to be read by dozens of interested relatives who can profit by the simple presentation of the subject in the winning essays which are usually printed in full.

City Planning for College Undergraduates

In addition to the graduate professional course in city planning at Harvard University and the instruction in technical departments or courses of architecture, landscape architecture, and engineering for men who may be called on later to participate in phases of city planning, there are several courses in city planning offered primarily for college undergraduates as part of a general education. At Dartmouth College, University of California, and Carleton College, these are given in the department of art; at the University of Oregon "principles of city

planning and relation to region, state and national plan" form a course in the school of sociology; while at the College of the City of New York, the work is given in the department of government, and at the University of Toledo, an evening extension course on planning is offered in the department of political science. The University of Southern California featured planning at a special summer session, as well as in its regular work. Many other colleges and universities offer lectures on city planning as parts of courses on other subjects — art, education, economics, landscape architecture, municipal government, political science, or sociology — thus bringing before hundreds of young men and women ideals of improved physical environment and methods of realizing these in our own country and under our own form of government.

It was found during the study tour in several places that a most desirable relationship was developed between planning commissions and the colleges in the neighborhood, as at Los Angeles and Lafayette, Ind., so that students had the benefit of the contact with those actually engaged in promoting planning.

Following conference discussions on city planning as a subject for study by college undergraduates, in 1928 the National Conference on City Planning circulated a questionnaire to about two hundred selected colleges and universities. The resulting replies, with other available information added, were tabulated for publication in *City Planning*, January, 1929, with supplementary notes in July, 1929. The considerably less than a hundred institutions listed, offering much or little instruction, are, however, only a small proportion of the total number which might, by setting aside a fortnight or so in a course on government or sociology, help diffuse planning knowledge among thousands of young citizens.

Use of National Sources of Information

In this chapter on public education in support of city planning, it would seem appropriate to mention briefly the general sources of information to which planning commissioners and teachers or students of city and regional planning may turn for collected facts.

The United States Department of Commerce, Division of Building and Housing, keeps up-to-date statistics of zoning ordinances and planning commissions, made available in annual compilations, together with lists of enabling laws for planning and zoning. Through its Advisory Committee on City Planning and Zoning, standard enabling acts have been prepared and published, as well as the popular primers already

referred to. The National Conference on City Planning was formed in 1909 for the express purpose of promoting a wider knowledge of planning; its files of Proceedings are an invaluable source of reference; and now, in 1929, it has just proposed an expanded program of educational work through the Planning Foundation of America for which funds are now being raised.

Harvard University, through the School of Landscape Architecture Library with its special city planning collections, has been the national center of bibliographical information on planning, made available through yearly published lists of plan reports and through a series of subject reference lists culminating in the book *Planning Information Up-to-Date* 1928 (Harvard University Press). The American Civic Association has long been active in publishing and distributing useful information on planning in popular form, and the National Municipal League special pamphlets have proved very valuable and widely used. The News Service of the National Association of Real Estate Boards has recently been responsible for items relative to city planning published in many newspapers throughout the country. No periodical could have done more to bring all sorts of planning problems and useful bits of planning news before municipal officials than *The American City Magazine* in the twenty fruitful years of its existence. Although from 1915 to 1918 a little magazine *The City Plan* was issued by the National Conference on City Planning, it was not until 1925 that a regular quarterly with numerous illustrations was launched under the same auspices called *City Planning*, which has already become an established medium for exchange of experiences and a source of authoritative information.

What Individual Citizens May Do

If an interested citizen not serving in any official capacity perchance may have read this rather long chapter, he may ask himself what he may do as an individual, once he has learned of his own city's plans and activities. The *Plan-It* of Portland has answered this question by quoting from the Seattle *Municipal News:*

> Support of the city plan by citizens is needed, and is ordinarily given generously. They may: 1. Consider the broad features of the plan in selecting and developing sites for various purposes. 2. Support adequate appropriations for the preparation of a comprehensive plan. 3. Support the city council in measures to execute the plan. 4. Encourage other property owners to conform to the plan, and 5. Personally advocate city planning.

CHAPTER VII

TECHNICAL PROCEDURE

Technical Work of a Municipal Planning Department

THE organization, staff, and appropriations for the work of city planning departments have already been discussed in Chapter III. Here we shall present briefly some assembled facts on sources of data for planning, on the extent to which the technical staffs of planning departments prepare studies and plans, and on staff work in keeping plans up to date.

Whether or not there has been a comprehensive city plan prepared after extensive surveys by a consultant retained for the purpose, planning problems constantly arise in every city which require current data of a highly specialized character. It is seldom practicable or desirable that surveys to secure such data should be made directly by the planning department unless this is large and fully staffed, for, if other departments of municipal government are well organized, each will have secured or be constantly securing the facts in its particular field, and sometimes even can make special surveys, or adapt surveys in progress, which meet needs indicated by the planning department. We find, for example, that municipal planning departments are making constant use of data supplied by the city engineer's office for matters of topography or highway location. Where no topographical map exists, the city engineer may undertake making one or an outside agency may be engaged, but rarely, as in Pittsburgh, does the planning department itself actually embark on such an enterprise. Assessors' maps have furnished valuable data on land values, and occasionally, as in Rochester, these have been supplemented by appraisals made by the local Real Estate Board. The city law department or city solicitor is drawn upon constantly for legal information, the city auditor for financial statistics, and the building department for figures of building construction, current or retrospective, indicating trends of growth. The school board furnishes child population data, sometimes, as in St. Paul, taking the form of a spot map resulting from an annual block census of child occupancy. Accident records of the police depart-

ment or police traffic counts, as in Detroit, furnish essential data for street planning, or traffic data may come from a director or council of public safety or semi-official traffic committee. Facts from the park department or recreation director are frequently furnished for park and playground studies. Sewerage departments of the city government are necessarily consulted. Meter records of water and light companies indicate population trends.

Of all sources of information on expected growth of population, the telephone companies have proved most fertile. In many cities it was reported that telephone company data on existing population and forecasts as to location of future population have been generously furnished and advantageously used. Another type of public utility company which has been coöperative in furnishing statistics is the street car company, or occasionally, if transit facilities be municipally owned, the city street railroad department. Chambers of commerce have supplied industrial and economic data. In Seattle the work of the public library was particularly mentioned, in compiling bibliographies of special information.

While undoubtedly social welfare agencies have supplied information valuable in planning work, the planning departments visited did not mention these, although in Knoxville the Director of Public Welfare was reported a valuable source. It would appear that the great voluntary regional planning agencies have paid more attention to social data than have city planning departments except where housing data have been included by consultants in surveys for city plans.* A closer relationship between housing and city planning, such as exists in Cincinnati or Philadelphia, would seem to be suggested for other cities and regions, and also more constructive consideration by city planning agencies of the various sources of social data basic to planning.

An efficient secretary of a municipal planning department will compile and keep at hand an index of local sources of information on all the various phases of community life and activity, just as the Philadelphia Regional Planning Federation has a complete file of sources on regional subjects, grouping the sources under the headings "Public," "Semi-public," and "Private." The public relations established by the planning commission and department engineer with these official and unofficial sources will determine how fully and freely they may be drawn upon.

As we have already suggested in Chapter VI, the educational value

* Newark, N. J., and St. Louis were pioneers in officially issuing housing reports related to comprehensive city plans.

to the public may be an important by-product of surveys made by voluntary organizations. In Glynn County, including Brunswick, Ga., where surveys were made by the consultant, some two dozen citizens' committees were formed to collect data, and even if all the necessary facts were not collected, the members of committees "sold" to themselves and to others the idea of city planning. The making of existing use-maps for Melrose zoning, already mentioned as a feature of high school civics work, proved valuable to the Melrose Planning Board. The services of boy scouts in making traffic counts have been effectively used. In Sacramento, after having been put through a training course, all but one out of 246 scouts turned in usable reports, and in Akron, Rochester, and Schenectady scout traffic counts have also been utilized. When untrained volunteers are organized to aid in surveys for planning, it is particularly important that the tasks laid out be well within their powers and made clear in advance by explicit directions, for otherwise disappointment and unpleasantness may ensue. Although citizen aid in survey making has apparently not been frequently called in by the planning agencies studied on the tour, nevertheless in smaller communities there may well be opportunities for combining public education with securing needed facts.

Current planning work is carried on by city planning departments, using their own staffs, perhaps with supplementary aid from the staffs of city engineers. A few departments retain the continuous services of an outside consultant, as we shall see later in this chapter, but several of the large city planning departments and some of the smaller ones have a sufficiently rounded staff to take care of their own studies and plans. In Cincinnati the planning department staff has done all technical work subsequent to the preparation of the Official Plan; and of course in the planning departments of Chicago, Detroit, Milwaukee, Pittsburgh, and St. Louis, comprehensive planning work is constantly going forward, but in Cleveland technical work is performed by engineers from the city engineering department. In the smaller cities of Akron, San Diego, Dallas, and Springfield, Mass., planning work is constantly done by the technical staff of the planning department, but in Columbus, Dayton and Grand Rapids the city engineer's office is called on for technical assistance.

No matter how thoroughly a comprehensive plan may be prepared, circumstances will be constantly arising which necessitate more detailed studies of specific projects or which call for adjustments of portions of

plans made on one set of assumptions to unexpected contingencies. Such a situation arose in St. Paul when the location of a great Ford plant caused the replanning of a large area by the city planning department. Then, too, if a city has a comprehensive plan, at periodic intervals certain surveys, such as uses of land and traffic flow, need to be made to check up the predictions of the plan and determine new trends revealed. Similarly surveys following the completion of planning projects are needed to show whether their effect proves in accordance with anticipations. As already suggested, such data may sometimes be secured from coöperating official and unofficial agencies, but the presentation of results and their interpretation in adjustments of the city plan are a continuing technical function of the planning department. Particularly notable in this regard is the work of Wichita, Kan., where the planning engineer has prepared a map visualizing building development since the original Bartholomew survey of 1918. It is planned to repeat these surveys at five-year intervals, "indicating in each case those things which have contributed to the particular points disclosed, either the establishment of improved transportation facilities or the opening and development of major streets and parks." * A somewhat similar comparative building development study at University City, Mo., has been described in the *American City*.

Such a checking up of plans with actual growth, together with an appraisal of the effect on community life, is as yet not sufficiently understood as a function of an official planning department. It is along this line that great service can be rendered in future not only to the particular city in question but also to other cities as data toward the general fund of experience.

Services of Consultants

Consultants are employed by planning commissions to prepare comprehensive or special plans, and, less frequently, they are retained in a continuous advisory capacity to guide the carrying out of plans after their presentation or adoption. Sometimes a single firm of consultants is engaged for making a comprehensive plan, as for the Cincinnati plan of 1925, and now in Sacramento, Cal., New Orleans, La., Knoxville, Tenn., Houston, Tex., and Little Rock, Ark., with a contract for one, two, three, or four years; sometimes certain features of a plan are studied by one consultant coincidently or coöperatively with a specialist in some other

* Letter of P. L. Brockway, Secretary, Wichita City Planning Commission.

field, as in Fort Worth, Tex. Sometimes only one phase of planning — frequently zoning or a major street or park plan — has been undertaken by a city, and for this a consultant has been employed, but later when some other phase became urgent, a different consultant has been selected, as in Trenton. Sometimes a board of consultants is retained, as for the Philadelphia Regional Federation, or several specialists, as for the National Capital Park and Planning Commission.

Aside from the specialists engaged by cities for reports on problems of traffic, transit, and transportation, of water-supply and sewage disposal, and of school distribution and operation, there seems to be a growing tendency for cities to engage one firm of consultants to prepare a comprehensive plan, or to employ a single consultant, counting upon him to have within his own organization or to associate with himself such specialists as he feels are required by the type of problems presented; occasionally two separate consultants working in close association may be employed for all phases of the comprehensive plan, as for White Plains, N. Y.

The amounts paid for consultants' services (whether or not including all expenses involved in producing the plan) vary widely, with the size of the city and consequent magnitude of the surveys involved, with the amount of usable information already available, thus lessening the survey work necessary to be done by the consultant, with the length of time expected to be consumed by the work, and, as in the case of lawyers and doctors, with the prestige of the consultant. Although naturally it was impossible to secure complete information regarding cost of consulting services to municipalities visited in the course of the field study, a number of figures were available. In general it can be said that for cities of medium and larger size, the cost of preparing a city plan to each inhabitant of the community is about the cost of a cigar or a handkerchief. Since the benefits of a plan are considerably more permanent, no one need feel that sensible city planning is an unreasonable luxury!

Among cities which retain consultants continuously, either on an annual basis or for special services rendered, are Chicago, Denver, Detroit, Oakland, Evansville, Oklahoma City, and Roanoke; Wichita retained the consultant for three years succeeding the drafting of the zoning ordinance, and Sacramento expects to make some kind of continuing arrangement.

The existence of a city planning department of the city government and the technical abilities of the staff retained usually determine how

much actual assistance may be offered to a visiting consultant as well as how much continuation work may be done by the staff after the main outlines of the plan are finished. If the city planning commission has no technical branch, as in the case of New Orleans, the consultant naturally has to set up an office for the period of the plan's preparation, desirably housed in close connection with the planning commission office.

Because of the limitations of the field study it was not possible to collect data on the cost of consulting work to smaller communities. The larger sums required for the job in large cities should not deter small towns from employing expert advice. There are a number of skilled and qualified consultants who have specialized in work for smaller communities with proportionately smaller fees; and the economy of securing wise technical advice before the mistakes of unregulated growth make their correction costly, should embolden even the very small towns to take counsel, as towns are now doing in the regions of New York, Boston, Detroit, Chicago, San Francisco, and Los Angeles.

Basic Surveys for City and Regional Plans

Growing appreciation of the interdependence of a city and its surrounding region is reflected in the regional character of surveys made even when the actual plan is limited to central municipal territory, although indeed few comprehensive plans to-day fail to indicate main routes and desirable public reservations in the tributary region.

The most elaborate comprehensive surveys for planning are those prepared after five years' study by the Regional Plan of New York, in four main groups: physical, economic and industrial, social, and legal.* The results are being published in a monumental series of volumes with titles which suggest the principal subjects of study preparatory to planning in all regions: major economic factors in metropolitan growth and arrangement, with a survey of industries; population, land values, and government; highway traffic; transit and transportation; public recreation; buildings, their uses and spaces about them; planning and development of land; public services and miscellaneous; to these, of course, should be added the physical or topographical surveys and the studies of legal and administrative conditions.

Taking into account as much of the region as the planner conceives to

* Experience in physical surveys summarized in paper by Harold M. Lewis, "Basic Information Needed for a Regional Plan," published with the discussion in *Proceedings of the American Society of Civil Engineers*, 1928.

have a determining reciprocal influence on city development, surveys for a comprehensive city plan are found usually to include some or all of the following: topography; population growth, density, and distribution; land uses and land values; undeveloped areas; location of industries; location of public buildings including schools; types of housing; traffic volume and flow; existing highways, with special maps showing accident points, jogs and dead-ends; transit facilities; railroad locations and grade crossings; port terminals and existing waterfront development; airports; existing parks and playgrounds; details of civic appearance, including monuments, street lighting and street furniture, street encroachments, street planting, front yards, billboards, and so on; together with facts on existing laws and ordinances affecting planning and execution of plans.

In addition to these more or less standardized subjects of preliminary study, we find in some southern cities careful studies of racial distribution; we find such a study as that conducted in Detroit of city-owned property which revealed a considerable amount previously overlooked, or that in St. Louis which brought to light an expired franchise, of which the renewal brought a substantial annual sum to the city treasury. Sometimes a health survey contributes to planning studies, although usually separately conducted. In Springfield, Mass., a fire station survey and in Norfolk, Va., data on fires were prepared.

Even when some one phase of planning, such as zoning or a street system, is the specific problem on which the planning commission and its technical advisers are engaged, the basic surveys must be sufficiently comprehensive to reveal all the important factors bearing on its solution in a reasonable and balanced way. The elements of a city are so intimately inter-related that no one element can be singled out for study without a consideration of all the others. A program of comprehensive planning, therefore, based on the comprehensive studies which must precede the development of any single phase, is more economical for a city than a series of unrelated special plans for which inevitably either certain survey work must be repeated or perhaps certain fundamental preliminary studies foregone. The scope of the surveys should be so selected that the facts may be translated while fresh and vital into the fabric of the plan.

The survey of legal conditions, which in a region such as New York or Philadelphia may be complicated, is frequently simple for a single city or town, particularly where some central state agency, as in Massachusetts, has codified existing laws affecting planning. Where necessary

legislation is lacking or deficient, suggested laws to be enacted frequently accompany the survey. To the legal survey is coming to be added a survey of municipal finances which expresses itself in the financial programs submitted as proof of the plan's capability of execution.

In addition to the city's financial resources, there is another set of financial considerations involved in the determination of what projects are practicable to be included in the city plan, illustrated by the economic studies made for White Plains, N. Y., where proposed street widenings and extensions were analyzed to determine *whether the saving effected would be commensurate with the cost involved.*

The importance of accurate and complete topographical surveys to city and regional planning studies cannot be overestimated. Baltimore * has been notable for its topographical maps, and similarly Pittsburgh and Allegheny County. Cincinnati and Akron, O., Schenectady, N. Y., and Greensboro, N. C.† have had complete topographical surveys, and Atlanta, Ga., is now having prepared a complete topographical map for the entire area of the city and about ten miles outside the city limits, to be used as the basis of a regional sewerage system.

The use of aërial surveys to show topographical features and existing uses of land, especially for phases of regional planning work, is increasing. It should be said, however, that not all the cities visited reported satisfactory use of aërial surveys, and in two or three — especially where a complete topographical map exists — little use has been made of aërial surveys secured. That there is a considerable difference of opinion on this subject among qualified planning agencies appears from reports on the one hand that the Chicago Regional Planning Association felt that enough additional data would not be secured to justify a cost of $40,000, while on the other hand the Philadelphia Regional Planning Federation is in course of having prepared an aërial survey of its regional area approximately 4000 square miles in extent, at an expense of slightly over the same sum. In Los Angeles there is an aërial survey, and it is hoped to have one every five years to show changes. Other cities and regions reporting fruitful use of aërial surveys are Buffalo, National Capital Region, including Maryland and District of Columbia, Minneapolis, Norfolk, Va., Rochester and Syracuse, N. Y., Trenton, N. J., and White Plains, N. Y. In this last-named city there is both a plain and contoured

* The Baltimore Topographical Survey Commission became in essence a planning commission and its reports of 1911–12 are important city planning documents.

† The methods used in preparing the topographical survey for Greensboro, N. C., by R. H. Randall and Company, are set forth in detail in a published report.

Courtesy of Los Angeles County Regional Planning Commission

A REGIONAL PLANNING COMMISSION AT WORK: LOS ANGELES COUNTY

mosaic, and the aërial maps are considered to have had a marked value in selling the city plan to the public. It should be noted here that whether or not a community undertakes an aërial survey, oblique aërial photographs particularly showing areas affected by street and park projects have been generally found most effective in making proposals intelligible to the public, both in illustrating published plan reports and in recording "before and after" conditions.

Even the smallest communities need to have maps of existing uses of land compiled in a form convenient for planning purposes, especially for zoning. A fertile subject for detailed research would be a critical comparison of methods now in use, some of which are available for study in published plan reports. In this connection the recent coöperative effort made in the Los Angeles region is of particular interest (as recorded in *City Planning*, January, 1929) since for the purpose of standardizing zoning symbols the Zoning Study Group of Los Angeles County has agreed on certain recommended symbols for use of property surveys; the standard district designations recommended in the same report have just been officially adopted by the county supervisors.

What Comprehensive Plans Include

A commonly used classification divides a comprehensive city plan into six main elements: zoning, streets, transit, transportation (rail, water, and air), public recreation, and civic art or civic appearance. Taken together, street planning, land subdivision regulations, and zoning are counted on to motive the types of land development and housing which the city plan aims to secure, so that in many plans housing does not appear as a separated element.

Perhaps for the benefit of the reader who may be less familiar with planning procedure, it may be worth while to imagine a typical city as yet unplanned, in a state having sufficient enabling legislation, to see what is involved in making a comprehensive city plan and devising means for putting it into effect. We will assume that a city planning commission has been appointed, a sufficient appropriation made for retaining skilled technical advice, and that coöperation has been secured from existing city departments and other sources of information.

The consultant selected will proceed to assemble the basic data discussed in the preceding pages, taking a greater or less time according as the desired information is difficult to obtain or already compiled. As soon as possible he will be sketching the main outlines of the street

system and determining roughly the areas of the city to be allotted to industry, business, and residence. Determination of the areas to be reserved for parks and parkways, too, is inextricably bound up with street planning and zoning. Meanwhile the transit system will be studied in its relation to the street system and the central district. If the development of the city be badly hindered by poor location of railroads, rights of way and yards, and frequent grade crossings, rough studies for relief will be weighed with studies for the street plan. If there be no natural civic center, possible locations must be considered in relation to street developments and zoning.

Studies which balance and harmonize apparently conflicting needs of various elements gradually dovetail into a comprehensive master plan for the whole city. A draft of the zoning ordinance is prepared, hearings held, and the ordinance and maps are submitted to the council for final consideration and passage. The plan of major streets shows the main radial and circumferential arteries of travel, indicating necessary widenings and extensions of existing streets, together with new thoroughfares; and this street plan may in certain states be submitted to the council for official adoption. The transit plan suggests reroutings of street cars and busses, and perhaps bus extensions into territory poorly served, of which the development may advantageously be stimulated. Rail, air, and water terminals appear in the transportation plan, related to transit and highway transportation. In the elements of transit and transportation the city is dealing largely with public service corporations with which negotiations may be difficult and protracted, although the financial difficulties suffered by street railroad companies have made them more ready to adopt measures for speedy relief, such as reroutings, which may be encompassed without appreciable expenditure.

The park and parkway system, with provision for neighborhood parks and playgrounds, will be adjusted to the anticipated population permitted by the zoning ordinance and planned to avoid the formation of undue traffic barriers, at the same time taking advantage of cheaper land unsuitable for other development. The plans for location of public buildings may include main and outlying civic centers; and general suggestions for improving the city's appearance, as discussed in Chapter XVI, may form a basis for immediate action by civic-minded citizens and civic organizations.

Accompanying the comprehensive plan are usually drafts of regulations to protect it and to ensure desirable types of development in unbuilt

areas, such as are found discussed in Chapter X dealing with control of plats and land subdivision. And finally, as already suggested, there should be an indication of priority in the projects proposed and a rough program of financing which will prove to business men of the city that the plan is practical and economically sound.

Methods of Presenting Comprehensive Plans

If there has been some specific situation which has given rise to public demand for a city plan, such as traffic congestion or threatened invasions of inappropriate land uses, it may be necessary to prepare and present some one of the major features of the plan as soon as the basic studies are completed; or if the time for making the plan is to extend over a period of years, it may be deemed desirable to complete and publish detailed recommendations for each major feature in a series of reports, one or two each year.

There is some difference of opinion as to the expediency of publishing comprehensive plans in full at one time. The Detroit City Plan Commission has long felt that a big comprehensive plan would appall the city council, and that it was far better to present one project or set of projects at a time for adoption, each of which fitted into the general scheme of development had in mind by the planning commission. On the other hand the Chicago plan published in full in 1909 has been an incentive and a goal rather than a bugaboo. The city plan of Memphis published in 1924 has apparently had only a beneficial effect, in fact planning progress in Memphis has been exceptionally steady and productive of real results. The complete official plan of Cincinnati published and adopted in 1925 by the city seems similarly to have had a favorable effect. A large number of published plans for smaller cities, such as Wichita, Kan., Kenosha, Wis., Ponca City, Okla., and White Plains, N. Y., have had marked success as officially and popularly accepted guides. For the very small community we commend the method of publishing a comprehensive plan recently employed for St. Charles, Ill., where the officially adopted plans are bound in a book of pocket size containing texts of zoning ordinance, building code, and platting regulations, thus inevitably serving as a guide for every builder and real estate operator.

The publicity value of published reports and methods of circulation have already been discussed in Chapter VI. From the facts obtained in the cities visited there would appear to be seldom any sufficient objection to publication of comprehensive plans, and we are inclined to feel that

a political situation which prevents this is exceptional rather than normal.

Whether there is any greater or less stimulus from a comprehensive plan study published in a series of reports remains to be seen. St. Louis and Pittsburgh are the two notable earlier examples, while Toledo, Evansville, and Des Moines, with Knoxville and New Orleans following, are more recent examples. When the production of the complete scheme will consume a period of years, there certainly is much to be said for producing serially some tangible, publicly discussed guide for each major phase of the plan on which some work may begin at once, — letting each appeal in turn to public understanding and possibly achieve a favorable cumulative effect.

The requirements for adequate presentation of a plan report are that the text itself shall be as clear and brief as possible, that extensive statistics and details be relegated to appendices, that plans shall be intelligible and readable in their reduced form, that photographs and diagrams shall be used as far as possible to give visual proof of critical points, and that the whole form shall be suited to the exact public use intended to be made of the report. It is always desirable even in a brief report to include a prefatory summary of the main features and recommendations. If a complete publication is inexpedient or too expensive, the consultant with the publicity man of the city planning commission may be able to select such salient plans and text as may best be fitted for general public use, out of the full comprehensive report accompanied by the complete set of survey facts and plans, which has been submitted to the city planning commission for its official use.

This whole subject of presenting city plans, both the original drawings and published reproductions, is one of great technical interest, but one which cannot be discussed here in the brief space available, and which therefore must be left for some future technical monograph.

Technical Guidance in Carrying out Plans

After comprehensive plans for a city have been made, these form the guide to which the department of public works, the park department, and other constructing agencies turn for the general lines of proposed public improvements. When the time comes for a given improvement, however, additional technical advice may be sought from the planning commission and its advisers as to the precise lines of a proposed street or boundaries of a park, if these have not been determined in advance as part of the

plan, or if modifying circumstances have arisen. In many cities detailed plans for improvements are made by the planning commission, as in Chicago where all plans except engineering specification details for the new outer drive have been prepared in the Plan Commission office.

The membership of the city engineer or chief of the department of public works in the city planning commission should result in sympathetic technical guidance in carrying out plan features, and this favorable situation exists in a considerable number of the cities visited. Few cities have a bureau of design and construction such as Rochester where the chief engineer of the plan commission has had charge of executing plans, or a planning commission which superintends construction of parks and playgrounds, as in Detroit and Syracuse.

In the establishment of confidence in the planning commission on the part of the constructing departments and respect for its suggestions, and in constant watchfulness on the part of the executive officer of the planning commission over each feature of the plan as it develops toward the stage of authorization and construction, we find the normal function of a city planning commission as the continuing pilot of the city plan.

CHAPTER VIII

FINANCIAL PROGRAMS

Public Improvements Cost No More Planned than Unplanned

"AN orderly program for inevitable improvements" is a headline used in Providence, R. I., to characterize the financial plan for thoroughfares set forth in the flier "Whitten Plan a Measure of Economy." The *American City* is responsible for another good phrase in "A city must pay either for planning or for lack of planning." Conforming to a city plan merely means that money for improvements is spent wisely and with forethought instead of haphazard. In Jacksonville, Fla., it was reported that nearly all the bond issues of recent years have been for improvements that should be classed as plan projects, but unfortunately there has been no city plan to guide these expenditures. As we saw in the preceding chapter, the cost to the city of securing a plan is only a trifling amount compared to the total of municipal expenditures; and the cost of maintaining an administrative department or division to keep the plan up to date and guide its execution is defrayed, sometimes many times over, by the savings effected in coördination and continuity in various types of public improvements.

Just so far as a community is able to pay for *any* improvements, it is able to pay for *planned improvements*. In analyzing the features of city and regional planning in relation to financing, the Regional Plan of New York has pointed out that certain features, relating to railroads, transit lines, and other public utilities should be made to pay for themselves. Certain other features, except for a slight administrative cost, involve no financial outlay, and in the end produce financial advantage, such as zoning ordinances and regulations controlling the platting of land, because these are measures for the protection of the health, safety, and general welfare of the community. The third class of features are sometimes considered financially unremunerative, such as new highways, widenings, parks and playgrounds, and public buildings. "Because the plan treats these and other features comprehensively, and forecasts the needs of the community for thirty or forty years ahead, it will appear, on the surface,

to contain suggestions that involve great additions to the normal expenditures of the community. But this is not so. The existence of a plan, however elaborate or far-seeing in its proposals, does not impose any obligation on the community to spend more money than it has to spend in any case to meet its normal requirements. On the contrary, it may be that the plan will indicate directions in which expenditures that would seem to be necessary in the absence of a plan, would really be wasteful; and also the plan may give the community guidance as to the order of importance, character, and treatment of improvements. Economy will be the result." *

The spread of the city planning movement throughout the country is in itself evidence not only that communities can afford to pay for planning and planned improvements, but that they *cannot afford not to plan.*

Financial Limitations Hindering the Execution of Plans

In Chapter II we have already touched on certain obstacles to planning, and to the control of city development according to plan, due to lack of enabling legislation or to poorly drafted laws. Here, in connection with financial programs, it is worth while to note briefly certain conditions as to debt limits, tax limits, and limitations as to special assessments † which have been reported in the cities visited. Excessive burdens of "municipal housekeeping" — sewers, pavements, and so on — such as were reported from Akron and from Pittsburgh (see article by Morris Knowles and U. N. Arthur in *City Planning*, July, 1926), following large annexations, inevitably result in the paring of city budgets and in difficulties in financing improvements proposed by city plans.

Among cities which have had planning studies made but which have been hindered in carrying out improvements, because of proximity to the debt limit, may be mentioned Asheville, N. C., Bridgeport, Conn., Des Moines, Ia., Evansville, Ind., Fall River, Mass., Council Bluffs, Ia., Harrisburg, Pa., and Seattle, Wash. In Rochester, N. Y., annexations have proved costly and tended to keep the city close to the debt limit. Chicago's borrowing power was practically exhausted in 1925, and new bonds can be issued only as existing bonds are retired. Charleston, S. C., and Savannah, Ga., where the planning movement has been started, are in the one case already over the debt limit and in the other very heavily

* Regional Plan of New York, Survey, Volume II.

† Reference should be made to the paper on this subject by Harland Bartholomew in *Proceedings of the National Conference on City Planning*, 1924.

burdened with debt, both cities reporting that planning progress has been hindered by this situation. Reasonable debt limits and tax limits fixed by law are a necessary protection to the public. In some cases the fact that a city runs up against the debt limit is not because that limit is too low, but because of lack of long-term budgeting. Cities get caught just as does an unbudgeted household. The very fact that such cities find themselves in this situation is in itself a proof of the desirability of an orderly plan.

There is considerable variation in the percentage of assessed valuation which constitutes the debt limit: in some states the rate is a fixed total percentage, excluding self-supporting utility bonds; in others, school bonds are also exempted from the fixed percentage; and some states (*e.g.* Tennessee) fix no limit, while others have a low limit which may be increased by vote of the citizens. Special acts of legislature are sometimes passed to increase the debt limit either without or with special stipulations, as in Rochester which secured a ten-million-dollar exemption of special local improvement bonds, with the provision that the project be paid for by 100 per cent assessment against benefited parties.

The methods used in property valuations affect the total assessed valuation on which total permitted bonded debt must be figured. Asheville recently lost a considerable amount through reduction in valuations by the county assessors.

The fact that a city may still have plenty of leeway below the debt limit has by no means acted automatically to promote planning. And conversely a few cities originally burdened with debt, like Rochester, have been able to undertake improvements on a "pay-as-you-go" basis, where there have been able administrators and a coöperative public to work out the financing.

In Ohio the constitutional limitation of 50 per cent for special assessments in street widenings and openings has been a handicap, which has not yet been removed, in spite of efforts. Similarly in North Carolina, Durham reported that a private act limiting special assessments to 50 per cent was an unfortunate obstacle. In Pittsburgh lack of a law permitting benefit districts (introduced but failed of passage) has been an obstacle. In Knoxville, defects in the state laws were reported which might limit the application of benefit assessments. In Utah the law requiring uniform assessments, thus prohibiting "shading," has created difficulties for Salt Lake City. In Milwaukee a State Supreme Court decision in 1926 declaring the condemnation and assessment law (chap-

ter 347) unconstitutional, has stopped the collection of assessments, the city standing to lose $4,500,000 in uncollected benefits already assessed. New legislation is being drafted in Wisconsin, but meanwhile the method of the Milwaukee County highway ordinance * is of all the more importance. Lack of authorization for benefit assessments in street widenings is reported a decided handicap in Wilmington, Del., and Louisville, Ky., and in Oklahoma City a similar situation exists, with the additional limitation that no bonds may be issued for street widenings or openings; therefore to take care of damages, without assessment of benefits, the six-mill tax limit is too low and it is found difficult to secure popular vote, as required, for an extra mill or two for this purpose. Akron, Ohio, with burdensome annexations, felt hampered by the state-imposed tax limit of fifteen mills (to include school, county, and city needs) to be exceeded only by popular votes, and succeeded in lessening the handicap at the election of November, 1928, by securing ten mills for city administration, exclusive of debt service charges. Cincinnati under its charter is not subject to this limit. Boulder, Colo., considers the charter limit of ten mills too low.

There is a natural desire on the part of city administrations to keep down the tax rate and therefore the cost of government, which is found in general to increase per capita with the size of the community up to a point just below the very largest cities. If the tax rate is to be kept reasonably low, and comparable to that of other cities of the same class, greater revenue may be secured by raising the standard of valuation, unless there is some legal obstacle. In fact, a recommendation made in connection with a number of plans for cities where valuations are unduly low is that they should have careful revaluations made with a view to securing additional current funds. If a city is heavily in debt, then debt service charges will constitute a serious burden on current revenues from taxation.

These very sketchy notes merely indicate some of the limiting circumstances which confront cities undertaking or about to undertake plans for improvements. Sometimes citizens have no conception of the complicated financial mechanism of municipal administration, and, as in one city visited, were actually so enthusiastic over planning that they had to be restrained from voting for more bond issues than the city could reasonably carry. Many of the earlier city plans were submitted without any analysis of the capacity of the city to pay for the improvements sug-

* See page 50.

gested, but the financial background is now coming to be an important element in the making of plans, and long-term programs are now engaging the attention of such progressive cities as Cincinnati, Detroit, St. Paul, Dallas, White Plains, and several others.

Long-term Programs and Budgeting

There has long been need for greater development of our knowledge of capital fund budgets for the guidance of municipal expenditures, particularly concerning capital funds raised by bond issues in their relation to all forms of municipal revenue. This problem has been made a special subject of study by the Detroit Bureau of Governmental Research, which prepared a ten-year program for the City of Detroit. This experience and resulting conclusions are summarized by Mr. C. E. Rightor (of the Detroit Bureau) in a valuable pamphlet, "The Preparation of a Long-term Financial Program," * which should be thoroughly studied by any municipality contemplating long-term budgeting. The original ten-year program prepared for Detroit in 1925 was subsequently modified to an eight-year program in 1927 by the Mayor's Committee on Finances. Strictly local improvements, of which the entire cost was to be specially assessed, were not included, but otherwise the comprehensive program was based on all expected revenues and necessary expenditures, estimated and correlated for all departments of the city government. A new ten-year program, 1929–38, has just been submitted, including $340,000,000 exclusive of $200,000,000 for rapid transit. The ten-year program for Wayne County, of interest from a budgeting point of view, is concerned with county institutions rather than planning projects.

The City of Cincinnati in 1927 turned its attention to making a budgeted program into which projects of its newly acquired city plan should be appropriately fitted. The city manager, city planning commission, the chairman of the finance committee of the city council, the bureau of municipal research, the board of education, the county commissioners, and local civic organizations were all represented on the preliminary committee which drafted a method of procedure. The planning commission was instructed to prepare an initial tentative program of major physical improvements for a term of five years, to be adjusted with like programs for city administration and upkeep prepared through the city manager, the work of consolidation being done by a joint coördinating committee consisting of the city manager, the chairman of the council finance com-

* Published by Municipal Administration Service, 261 Broadway, New York.

mittee, and a member of the city planning commission. "This committee has the function of modifying and adjusting the program, keeping it within the financial resources of the city and a reasonable tax rate," * programs being made for five-year periods and kept up or advanced so that there will always be a program for the next succeeding five years. The actual working out of this plan fell short of the method suggested, "because the city planning commission was not permitted to perform the part allotted to it by the plan," and because the committee fixed only totals without specification of projects, — all this resulting largely from the haste necessary to submit bond issues at the approaching election. But it was hoped that thereafter the so-called "Cincinnati Plan," which met with widespread approval of governmental experts, would be carried on according to the correct procedure.

The Ulrickson Committee Plan for Dallas, Tex., presented in 1927, was the result of a desire to correlate the various improvement plans presented to the city commission but laid aside on account of insufficient funds. The Ulrickson Committee was selected by the mayor, the president of the chamber of commerce, the chairman of the city planning commission, and the president of the Kessler Plan Association. The plan itself embodied "detailed estimates of cost of a $23,900,000 program of improvements, to be consummated in nine years or less, together with a summary of all costs to the tax-payer." † Bonds were to be issued, not more than $4,000,000 in any one year, and a Citizens' Committee was created on supervision of expenditures. The entire program was approved by the voters of Dallas in December, 1927. Their attention had been called to the fact that the amount of bonds recommended exceeded only slightly the amount actually issued during the previous nine years.

Another Texas city, El Paso, has very recently prepared a ten-year program of "the projects which seem most important for the welfare of the city" published as the Report of the Robertson Committee, of which the secretary-engineer of the city planning commission acted as secretary and statistician. The needs of the city during the ten-year period, 1929–38, have been analyzed and the effect of carrying out needed improvements carefully studied in relation to the tax rate. The results

* The quotations are from a valuable paper by Alfred Bettman, "Cincinnati in the Future" in *Bulletin of the Cincinnati Woman's Club*, Feb., 1928. See also explanation of the Cincinnati Plan by John B. Blandford of the Cincinnati Bureau of Municipal Research in *Proceedings of the American Society for Municipal Improvements*, 1927–8; and briefer explanation in Mr. Rightor's pamphlet already mentioned.

† Explanation of the Ulrickson plan by Major E. A. Wood in *City Planning*, Jan., 1928.

were submitted as a working financial plan, with provision for periodic revision, — bonds to be voted at the start for the first three years, and then every two years, — guided by a non-political "Capital Expenditures Committee" to be appointed.

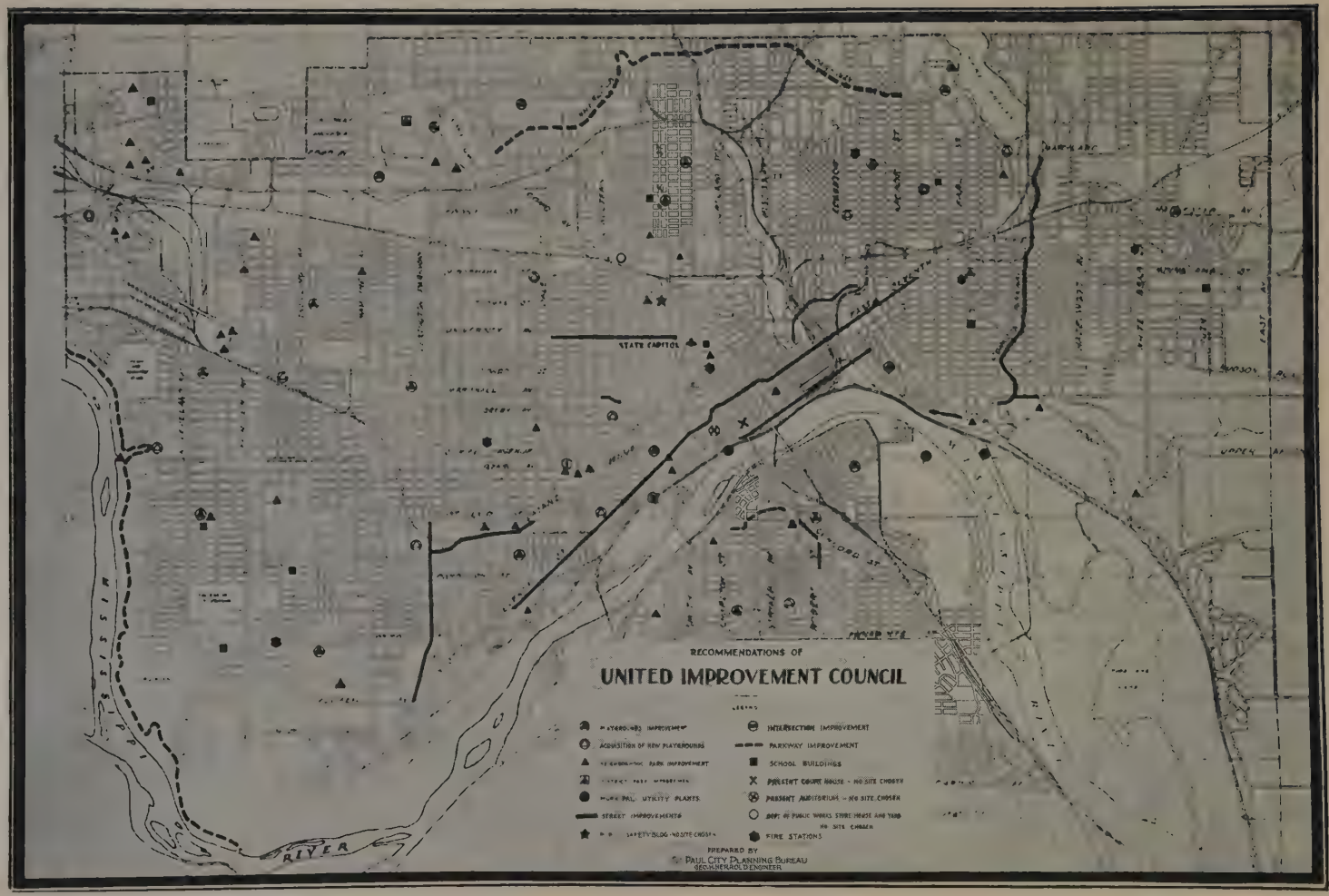
In discussing these more recent bond programs, we should not forget the historic $87,000,000 ten-year bond program of St. Louis voted in 1923, following five years after the St. Louis City Plan Commission's pamphlet of 1918 "St. Louis after the War," which was in effect a long-term program. The budgeted improvement program of 1923 has been very closely adhered to and attended with gratifying success, described in the article on St. Louis by Mr. Bartholomew in *City Planning*, July, 1929.

In 1926 the city of Bridgeport, Conn., had prepared by a civic consultant a five-year improvement program which was published in the local newspapers of Nov. 14, 1926. This, however, has been considerably exceeded by the city in the two succeeding years. Grand Rapids had prepared in 1927–28 by the secretary of the city planning commission a five-year program consisting of forty of the most necessary planning projects, some of which have been since completed. In Minneapolis it was reported that the Board of Estimate and Taxation prepared a five-year financial plan of permanent improvements. In Milwaukee the recreation and thoroughfare plans are partly budgeted, and similarly in the National Capital there is a five-year program for financing desirable park acquisition.

Another interesting published long-term report available for study is that of the United Improvement Council of St. Paul, made to the city council in August, 1928, in the form of an exhaustive study of St. Paul's financial condition accompanied by recommendations on necessary projects in the form of a five-year program, in which the City Planning Board coöperated. As a result of the subsequent publicity work undertaken by the United Improvement Council, the program was endorsed at the November election by the citizens, who voted bond issues of $7,577,000 for important projects. In this connection it is significant that several of the same items submitted to the people of St. Paul in 1927 by individual councilmen failed to pass, because the voters felt that however meritorious the projects might be they were not based on a comprehensive study of St. Paul's needs.*

The most elaborate program covering the longest term is the fifty-year capital budget recently published as part of the City Plan of White

* Comment by George H. Herrold, *American City*, Jan., 1929.



Courtesy of George H. Herrold, Engineer, St. Paul City Planning Board

MAP ACCOMPANYING LONG TERM PROGRAM, SAINT PAUL

Resulting in favorable citizen vote for bond issues

Plains, N. Y., prepared by Messrs. Goodrich and Whitten, the detailed compilation of the budget being made by the City Commissioner of Finance. Cost of each improvement recommended in the plan was estimated; past and probable future total assessable value of real estate was ascertained and used to determine the limits of bonded indebtedness from year to year; estimates were made of probable future costs of government, payable from taxes and other municipal income. The tentative scheme, covering fifty years, was adjusted so that no hardship would devolve upon the taxpayers, and thus demonstrated that it was economically safe to adopt and carry out the proposed city plan. An appendix to the report showed future estimated annual tax rates for the whole period. Naturally it was expected that each year an adjustment would be made, and in fact at the end of the first year it was actually found that more funds than anticipated would be available for the next year's improvements.

In the vicinity of New York, in addition to White Plains, comprehensive plans and long-term budgeted programs have been prepared and are serving as guides for Rye, Bronxville, Mamaroneck, Briarcliff Manor, New Rochelle, N. Y., and Moorestown, N. J.

In Los Angeles the city planning commission is making a thorough study looking toward budgeting the cost of proposed great construction projects, and the subject was commended to all California communities at the 1928 annual convention of the League of California Municipalities in a resolution recognizing "the complexities of the problems of pyramiding assessments, overlapping of assessments and districts and the unscheduled and unrelated initiation of public improvements" and urging public officials to give serious attention to budgeting in a scientific manner. The San Francisco Bureau of Governmental Research has issued a pamphlet strongly recommending the formulation of a capital expenditure budget based on the city's financial resources and the relative importance of major projects already proposed.

Several cities visited reported that long-term financial programs were being prepared or were about to be studied. Among these Dayton (using as a general guide the program for execution submitted with the Technical Advisory Corporation Plan) has appointed a Citizens' Committee on Coördinated Budget to prepare a ten-year budget plan. Buffalo (Capital Budget Committee) and Pittsburgh are also preparing programs for future public work, while Boston and Oklahoma City expect their consultants to submit budgets as part of plans now being prepared.

In Duluth, coöperation with the Taxpayers' League is expected to bring about a five-year program, and a program for a similar term of years is being developed in Durham, N. C.

Among cities which have had programs prepared but where it was reported that these were not being followed, in addition to Bridgeport, are Harrisburg, Providence, Syracuse, and Trenton, various political and practical reasons being given for their disuse. The ten-year program for park acquisition in Richmond, Va., has been followed only to a limited extent, although a similar street improvement program has been closely followed. In only one city, Schenectady, was it stated that the city planning commission definitely did not advocate a financial program because of the impossibility of getting reasonably accurate figures for such a purpose.

In looking back over the rather considerable amount of effort toward programs for city plan improvements, — aside from the priority programs submitted with a number of earlier plan reports, usually without any definite attempt at budgeting,* — we see that these efforts vary all the way from a comprehensive capital budget for all municipal expenditures over a stated term of years to programs for financing merely a series of plan improvements. It was the comprehensive type of capital budgeting which the National Conference on City Planning advocated in a resolution of 1928. It is to that type of budgeting that we may look for real results if *scientifically and coöperatively prepared*, taking into account all the component factors of revenue and expenditure, with provision for annual adjustment to the actual figures as they work out from year to year. A danger of programs and budgeting apprehended by some municipalities, namely that land speculators would take advantage of foreknowledge of public improvements, may be mitigated by having the long-term capital budget accompanied, as in White Plains, by a confidential long-term program represented only by totals in the published budget.

In determining the period of years which it is desirable to cover by a capital budget, it should be remembered that since provision must be made for adjustment every year, or at least every two years, the *working budget* covers actually only that short period, and that the balance of the set term is covered only by an approximate *program*. To be of any value, the program must cover at least five years; it may cover many more, especially when its purpose is to show practicality and priority of proposed plan projects. The rise of the automobile in twenty-five years,

* The East Orange, N. J., plan was an exception, but the budget was never officially adopted.

however, is an indication of how many unguessed factors may arise in the next fifty years to modify our present predictions. We are just on the threshold of this important function of municipal administration, a function recognized in the Department of Commerce Standard City Planning Enabling Act as one in which the city planning commission should bear an important share.

Paying for Improvements

The city raises money chiefly by taxation, special assessments, and bond issues. In this country excess condemnation, mentioned in Chapter II, is seldom employed and has not yet proved an appreciable source of revenue, in spite of apparent possibilities. Neither are gifts and bequests and other special sources of revenue to be counted upon in any considerable number of cities.

It is a universally accepted principle that the current operating and maintenance charges of the municipality should be paid out of current taxes, including of course all debt service charges. And it is coming to be felt that schools should also be provided out of current revenues. Unless state laws forbid it, special assessments may be levied where special benefit is created by public improvements, and the municipality may recover all or a substantial part of the cost of an improvement, according to whether the benefit is purely local or accruing in part to the city at large, that part being paid from taxation or bond issues. When projects are undertaken partly for the good of future generations, such as parks, boulevards, or airports, it would appear just that part of their cost should be borne by taxpayers over a period of years, and bonds are therefore issued which are in effect a method of paying for public improvements on the installment plan, since each year a sum is set aside from current taxes, in addition to interest to retire these bonds.

There has been a good deal of discussion among those interested in city planning as to whether the bond issue or the "pay-as-you-go" plan is the soundest method of financing public improvements. As already pointed out, legal limitations largely determine the choice of method or combination of methods, but even where there is considerable latitude one plan or the other may commend itself more strongly according to the temper of the citizens.

Among the cities visited several were conspicuous as successful examples of the "pay-as-you-go" plan: Hartford, Conn., Springfield, Mass., Kenosha, Wis., Indianapolis, Kansas City, Mo., and Washington,

D. C. In Denver, this method has largely prevailed, and Detroit also maintains a "pay-as-you-go" policy, no bonds having been issued for street improvements. Toledo pays for the 50 per cent in street widenings required of the city out of current revenue, and the City of Los Angeles is collecting nine cents on $100 of assessed valuation for the second series of street plan projects (having financed the first by a bond issue), while the county pays for its share of highway improvements out of current taxation and from the county's share of the gasoline tax, which is large.

There is no aspect of financing city plans which deserves more intensive study than benefit assessments. "What We Don't Know about Special Assessments" (the title of an article in *City Planning*, October, 1928, by Mr. Walter H. Blucher of the Detroit City Plan Commission) indicates how much we need to have experience in this matter compiled, reviewed, and analyzed. For carrying out the major street plan for Oakland, Cal., an assessment specialist has been retained to advise the proportion of the proposed bond issue to be devoted to each project and the maximum amount that may be properly assessed against benefited property. It is hoped that a method of prorating payment of assessments for street opening and widening over a period of years instead of within thirty days as at present in Oakland and a number of other cities, will be developed, although the more common practice is to spread the payment of benefit assessments over a period of from five to ten years.

Kansas City, Mo., furnishes the historic example of financing a park and boulevard system by benefit assessments levied on park districts; similarly in Denver the park district plan has been successful. In St. Paul and Topeka, parks have been acquired by 100 per cent assessment. St. Louis has perhaps the best system in the United States for street widenings according to the major street plan, under which the city pays from 18 to 30 per cent, the rest being assessed against benefited property. In Chicago the city has borne about 50 per cent of the cost of major improvements, the other 50 per cent having been secured by benefit assessments. In Cleveland fifty-fifty, as limited by law, has been the general rule, and about 50 per cent is the rule in White Plains. In Kenosha from a series of three benefited districts about 48 per cent has been collected on widenings, while in Portland, Ore., from 33 to 50 per cent has been collected on recent street projects. A relatively small amount is collected in central district widenings in Springfield, Mass., although practically 100 per cent is collected in residential street plan projects.

In Memphis and Knoxville, 75 per cent has been assessed on street

plan improvements. In Memphis, under benefit districts, 66⅔ per cent is the maximum which can be assessed, so that the front-foot method is used as far as possible. Pittsburgh can assess only on frontages and in view of damages incident to rough topography finds this an obstacle, as already noted. In Detroit special assessments plus the one-mill tax have taken care of major improvements, the city assessing by districts 66⅔ per cent on major projects and 85 per cent on local projects. Los Angeles County can assess 100 per cent for highway rights of way, apportioning certain costs by benefit districts.

Minneapolis has the power to assess 100 per cent but actually the city usually pays a third of the cost of major improvements. Wichita collects about 95 per cent, while some successful 100 per cent collections have been made for street projects in Fort Wayne, Grand Rapids, and Harrisburg; and Hartford, even in the central district, has been very successful in collecting a high percentage.

In Dallas a most successful method of assessment has been employed for street openings, no projects being undertaken or assessed except after property owners have been given an opportunity to voice approval. Then a large part of the whole cost is assessed against benefited property. Delays incident to the issuance of five-year assessment certificates are eliminated by the establishment of a revolving fund, and large assessments are mitigated from the point of view of the property owner by the recent law extending the time of payment to fifteen years. In Dallas and other Texas cities the Homestead Law has interfered seriously with special assessments, but Dallas has been able to overcome this handicap to a large degree.

Although excess condemnation has been so little employed in America, instances of the financial results where used are of great interest. In the Carnegie Avenue extension in Cleveland, — one of the most conspicuous examples, — triangular remnants of property acquired for the extension were sold at good prices, paying for a considerable portion of the cost of the improvement. Also under the Ohio Act, in Cincinnati, excess condemnation was employed on one street widening, but this has dragged and a case is now before the courts to test its constitutionality.

It is reported that in the widening of Belmont Street in Worcester, Mass., excess parcels were sold for three times their cost to the city. Without authority, before the passage of the present Michigan act permitting marginal excess condemnation, Detroit has been condemning additional property (on various excuses permitted by the courts) to

prevent odd-shaped parcels along a street widening project, and the city has profited from the sale of the remainder land. Rochester, N. Y., has undertaken a dozen projects involving excess condemnation, but only one * has been entirely completed and on this the city just about broke even. On some of the others it is expected that a little money may be lost, but the city will be compensated by the better rearrangement secured. In Springfield, Mass., excess condemnation has been slightly used, but in the last ten years not more than twelve small remnants have been sold. In Providence, R. I., excess condemnation was used in the Wickenden Street improvement, but the excess land, instead of being sold, was later dedicated for much needed park purposes.

Excess purchase has been used in Greensboro, N. C., where the remainder of a site bought for $100,000 to secure a street widening was sold for $170,000. In Madison, Wis., excess purchase has been employed in connection with a grade separation project, and the remnants sold for enough to pay for the land needed. In Seattle, Wash., also, odd additional areas have occasionally been secured and later been resold, but there is no legislative authority for this procedure. In Syracuse, N. Y., excess purchase was used in the boulevard developed from the old canal (acquired from the state) and the excess land was sold to help defray the cost of the improvement. In Camden, N. J., the city made a substantial profit by purchasing 15 acres more land than the 42 needed in the civic center, afterwards selling $3\frac{1}{2}$ acres, with restrictions as to appearance of buildings, for four times the original purchase price of that $3\frac{1}{2}$ acres. A design for the civic center is now being prepared, and the announcement of this project has stimulated activity in the purchase of adjoining land.†

We may look for a considerable development of excess purchase and excess condemnation, under the increased number of enabling acts, and ten or fifteen years hence this promising method of contributing to the financing of a city plan may have been more widely demonstrated than in the very limited number of instances cited.

Bond issues are usually essential to carrying out major improvements which may not be financed wholly by taxes and special assessments, and which frequently bring in the greatest returns in social benefits or increased valuations only after a period of years. As already pointed out, paying for improvements in this way is comparable to the installment plan or what is now more fashionably called the budget-payment method;

* Known as Municipal Sub. No. 2. Devonshire Court.

† See comment in Chapter XVI.

and indeed this last phrase is peculiarly applicable in city planning in view of the long-term programs now being undertaken. Just as we should not buy a vacuum-cleaner on the budget-payment plan over a period of years twice that of the usefulness of the cleaner, so, after years of confusion in municipal finance, it has come to be recognized that improvements in cities should never be paid for by bonds issued for a greater period than the life of the improvement.

As we have already suggested in the preceding section of this chapter devoted to long-term programs, some cities have had striking success with large bond issues for improvements according to city plans. Chicago has bond issues totaling $296,000,000 passed for plan projects since the publication of the Plan of Chicago. The St. Louis vote approving some $87,000,000 in 1923 was an indication of confidence in the St. Louis plan and its financing. Dallas and St. Paul similarly endorsed bonds in long-term programs. In Dayton the vote authorizing $8,000,000 for grade crossing elimination was a notable step in carrying out the city plan. The Oklahoma City $10,000,000 bond issue of 1927 voted after a spectacular publicity campaign assured rearrangements incident to railroad relocation vital to the city plan. Portland, Ore., endorsed the major street plan in November, 1928, by voting over $5,000,000 for street widening projects. Issues of bonds for the Westchester County parks have permitted a program of over $50,000,000 for acquisition and construction in six years. The San Francisco boulevard bond issue of over $9,000,000 was voted in 1927.

When large bond issues have failed, one of two principal causes may usually be ascribed, — distrust of a political administration or lack of preliminary educational work. In Cincinnati it was reported that all bond issues submitted by the present administration have passed, all submitted by the previous one failed, for underlying political reasons. In Chicago, distrust similarly brought about the first failure of plan bond issues in nearly twenty years. In Detroit, where city plan bond issues usually pass, the proposed $20,000,000 civic center issue of 1928 failed largely because of inadequate popular understanding. In Toledo lack of confidence in the administration again is given as the cause of the failure of most of a $32,000,000 issue of 1925 which was proposed in accordance with the city plan, and in this case too much publicity and preliminary pushing is reported to have contributed to the failure, as citizens began to ask who paid for all the publicity and what the interested parties expected to get out of it.

The twenty-year serial bond has been widely endorsed as suitable for financing plan improvements, paid off out of current taxation, or as in the case of the San Francisco boulevards, from special sources of income, such as receipts from automobile and gasoline taxes. In the $15,000,000 bond issue passed in Akron in November, 1928, which included a large share for plan improvements, all but the $6,000,000 for waterworks (payable from water service revenues) will be repaid from general taxation.

The leading types of plan improvements which cities have found suitable for financing wholly or partly by means of bond issues are civic centers, union station developments, parks and parkways, major street openings and widenings, boulevards, grade crossing elimination, bridges, viaducts, airports, port development, sewerage and drainage projects, and permanent improvements for flood prevention and control.

Spending for Correction of Defects or for New Developments

It naturally occurs to anyone studying the expenditure of public funds in accordance with city plans to wonder how much is being spent for the correction of conditions incident to unplanned growth, and how much is put toward new developments such as the building of a civic center, parks and parkways, and main thoroughfares in unbuilt areas. Although in many cases it might be difficult to classify an improvement in one category or the other, — especially as many present needs were unknown a generation ago, — nevertheless this question was put in all the cities visited, with interesting results.

In Denver, Dallas and Houston, Des Moines, Akron, St. Paul, Syracuse, and Wichita, it was reported that expenditures ran about fifty-fifty for corrections and for new improvements. In Canton, O., only about 40 per cent went for corrections. In a considerable number of smaller cities and in certain western cities where congestion has not become acute, or where rapid growth has made it expedient to press forward on developments while land is still open, it was reported that expenditures were largely for new improvements. In Asheville and Greensboro, N. C., about 20 per cent, and in Johnstown, Pa., about 20 per cent only were reported for corrections; in Altoona, Pa., about twenty parts for new work to one for corrections.

Several cities reported that practically all the money spent went for new improvements, among these being Baltimore, Kansas City, Mo., El Paso and Forth Worth, Tulsa and Oklahoma City (aside from the railroad readjustments), Salt Lake City, San Diego, Norfolk, Va., New Bed-

ford, Mass., Wilmington, Del. (where it is only fair to note that important widenings were financed by private generosity), and Washington, D. C. Of cities under 100,000 population, Brunswick (Glynn County), Ga., Durham and Raleigh, N. C., Roanoke, Va., Harrisburg, Pa., Council Bluffs, Ia., and Ponca City, Okla., also reported expenditures almost entirely for new developments. Of course it should be remembered that the fact that little money was spent for corrections is no proof that corrections may not be greatly needed, as for instance those revealed in Harrisburg, Baltimore, and Council Bluffs, — but several of the cities mentioned have obviously embarked on conscious guidance of growth before conditions have become too acute.

As we should expect, several of the larger cities report that the greater part of expenditures for planned improvements have been devoted to the correction of defects, as in Detroit, Seattle, Portland, Ore., Atlanta, Providence, New Haven, Schenectady, Duluth, Pittsburgh, Knoxville, and Los Angeles. In Memphis the comment was made that the greater amount spent for correction of defects would not have been necessary if there had been plat control earlier, and similarly in Cleveland, where practically all has been spent for corrections, it is expected that the control now exercised in new sections will obviate the need for similar expenditures in future.

There is plenty of accumulated evidence to demonstrate to small cities and towns, still uncongested, that it will be very much cheaper to begin at once to grow according to plan, and that the total returns for money expended will in the long run be far greater than if a policy of indifference and delay be pursued. A summary of gains resulting from planning will be found in Chapter XVII, "It Pays To Plan."

CHAPTER IX

COMPREHENSIVE PLANS IN ACTION

Plans Now Being Carried Out

ON the shelves of the special city planning library at Harvard University there are literally hundreds of city plan reports prepared in the last twenty-five years for cities in many parts of the United States. Some of these deal with special phases of planning, — major streets, park systems, transit, port development, civic centers, — but many of them are comprehensive in scope even if not carried into great detail. And we know that there are scores of other plan reports submitted to municipal authorities or civic organizations which never appeared in published form at all. The vaguest sort of guess might place the total of all these, published and unpublished, at a figure well over a thousand.

Barring the special feature reports which do not form part of a consistent series intended to constitute a comprehensive plan, there remain approximately 300 reports representing some 200 cities which have been the subject of general planning studies. We know very well, however, that in this country to-day there are by no means 200 plans actually being used in guiding growth and development. For many reasons, as pointed out in Chapter I, some of the earlier reports were of a very sketchy, superficial, or impractical nature, or else were too far in advance of public opinion to be appreciated and followed. The necessary legal background, too, frequently did not exist.

From the confusing totals given in various papers and reports, we are often at loss to know how many comprehensive plans are now in action, so to speak, and how long a practical experience such communities have had in developing according to plan. Among the cities selected for this field study, there were at least 25 found to be in this active class. There are certainly many more than 25 communities in the whole country growing (or starting to grow) along comprehensively planned lines, especially if we include groups of suburban towns recently stimulated by regional plans, but it was naturally impossible to study them all, even though their number is by no means so great as one might suppose from the total number of planning studies.

It will be worth while to survey briefly a few communities of various types and sizes where considerable progress has been made in carrying out comprehensive plans, with a view to seeing what results — social, economic, and esthetic — the cities themselves attribute to planning activity.

Of the metropolitan centers, Chicago, St. Louis, Pittsburgh, San Francisco, and Washington are distinguished by having had comprehensive plans prepared, although as already pointed out there is no one of the other cities with a population over 500,000 which has not been and is not working on important planning projects. San Francisco alone of these five has disregarded its comprehensive plan.

The plan of Chicago has now been in action nearly twenty years. The splendid sum of nearly $300,000,000 has been spent or authorized for major projects in harmony with the plan, including the lakefront parks and drives, the Cook County Forest Preserves, new or widened traffic arteries, railroad terminals, and the straightening of the Chicago River with attendant street and railroad rearrangements. The report of the Chicago Plan Commission entitled "The Plan of Chicago in 1925" summarizes the achievements of fifteen years. Chicago's magnificent lakefront continues the tradition of beauty established by the World's Fair; commerce and industry are promoted by the increased means of circulation; just what effect, however, the plan has had on the social fabric of Chicago, it is difficult to judge in this period of gang warfare and political turmoil.

The City Plan Commission of St. Louis has been in operation for thirteen years, during which time there has scarcely been an important public or semi-public undertaking that has not been related to or influenced by the city plan.* In the report "Ten Years Progress on the City Plan of St. Louis, 1916–1926" there is an impressive list of planning accomplishments, in the major street system, in transit and transportation, in recreation areas, and in civic art. In spite of the temporary nullifying effect of the unfavorable Missouri decision, zoning, together with platting control, has improved home life in St. Louis, and the steady provision of neighborhood parks and playgrounds is meeting an urgent social need. The business life of St. Louis, too, has been profoundly influenced by improvements in circulation and by increased property values in a large, once-blighted district. Dozens of further projects, including the

* A most valuable account of planning results in St. Louis, written by Harland Bartholomew, city plan engineer during the entire period, appears in *City Planning*, July, 1929.

great riverfront development, now authorized or in an advanced stage of study, promise even greater returns in convenience and amenity.

The extremely difficult topography of Pittsburgh, necessitating a long period for the preparation of a complete topographical map, the resulting difficulties of transit planning, and the city's heavy financial burden of major upkeep and replacements,* have combined to prevent as great progress in carrying out plans in Pittsburgh as in either Chicago or St. Louis. Nevertheless the Citizens Committee plans and subsequent City Planning Commission studies are in active use and Pittsburgh is attempting to meet complicated problems of growth in a comprehensive way.

The plan of Washington occupies a unique position in the country. Since its revival and development by the Park Commission in 1900 and by the National Commission of Fine Arts from 1910, its adaptation to regional growth has been assured through the work of the National Capital Park and Planning Commission. A modern comprehensive plan, based on the original L'Enfant plan, is in course of detailed development, and important projects such as the Triangle group of Government buildings, and new parks and parkways, are under construction, while the improvement of the outlying street system is already effecting great savings in building and upkeep, as well as esthetic gains. Great esthetic benefits are also accruing in the protection and enhancement of the dignified character of the National Capital constantly sought by the Commission. The story of the two years' work in developing the Plan of Washington as told in the Commission's annual reports is inspiring reading.

The plan of Cincinnati, already frequently mentioned, was presented in 1925, and officially adopted by the city. In less than four years, very considerable progress has been made in carrying out plan recommendations, especially in the great railroad improvements being effected, as well as new and widened thoroughfares and additional parks. The history of city planning in Cincinnati, with its extensive educational work, its long-term budget, its efficient planning commission and its regional influence, deserves especial study.† The development of a unified civic consciousness, extraordinary in a city of over 400,000, is accounted an outstanding result.

Coming now to cities under 200,000, Memphis is preëminent in sub-

* See comment in *City Planning*, July, 1926, pp. 158–160.

† Cf. the paper by Alfred Bettman referred to in note on page 119.

Courtesy of Embry-Riddle Company, Cincinnati, O.

CENTRAL PARKWAY IMPROVEMENT, CINCINNATI OFFICIAL PLAN

stantial city planning progress along the lines of the published plan of 1924. Street openings and widenings, transit improvements, zoning, and control of plats, have all proceeded in an orderly fashion. Bond issues for improvements endorsed by the planning commission have been carried by an almost unanimous vote. In the judgment of the Hon. Rowlett Paine, ex-mayor of Memphis, city planning has "brought about great stability in the affairs of the city itself, has influenced definitely the growth and development of the city, and has inspired a feeling of confidence in the city, both within and without.*

Among cities of about 100,000 population, Wichita is notable for having put a city plan thoroughly to work, under the guidance of a sympathetic city engineer. Really substantial progress has been made toward the plan as a whole, in street improvements, parks, zoning, and other features recommended in 1923. The zoning plan is held to have exerted a remarkable influence on the orderliness of subsequent development.† Few cities can show a more economical and beneficial result from growing according to plan.

The city plan of Johnstown, Pa., a city of about 75,000, was prepared just at the opening of our participation in the Great War; but since the close of the war the people of Johnstown have been steadily carrying out the plan, so that a large part of the major recommendations to-day are either carried out or under construction. With the wide public knowledge secured by the exceptionally fine publicity work of the city planning commission, has developed a greatly increased civic pride; and the commission can point also to economic and esthetic results in expedited traffic, increased property values, and enhanced civic beauty.

Kenosha, Wis., a city of under 60,000 inhabitants, awarded the prize in the Wisconsin "Better Cities" contest, is distinguished for progress on the city plan prepared between 1922 and 1925.‡ It can show to other small cities how much can be accomplished by regulative measures, — zoning, setback building lines, and platting control, — as well as by improvements paid for out of current funds, in the form of elimination of street jogs, street widenings, new openings, and a fine civic center development which forms part of a definite program of better civic appearance.

If space permitted, it would be interesting to discuss progress on some other comprehensive plans: Newark, because it is one of the earliest with a comprehensive series of special studies, which have had a considerable

* *City Planning*, Oct., 1926, p. 263. † *City Planning*, Oct., 1928, pp. 301–3.
‡ See article by R. L. Petersen in *Wisconsin Municipalities*, Nov., 1928.

development in spite of present political indifference to city planning; Madison, Wis., because of the early park system and more recent studies which have combined to produce an exceptionally attractive city; Springfield, Mass., because of continuing studies and many accomplishments; Evansville, Ind., because of steady educational work; El Paso, because of a live plan and unusually striking topography taken advantage of; Dayton, because of great grade crossing elimination agreements according to plan. And there are ten or so other cities visited, which will be found mentioned in various chapters of the book, where comprehensive plans secured within five years are serving actively to guide development.

Of older plans, Seattle, Minneapolis, Boulder, Colo., Portland, Ore., and Akron, O., should be mentioned as having been used as rough guides, with a distinct local educational value.

Of cities which have had dovetailed special plans, which taken together have worked more or less harmoniously toward a comprehensive development, there are Boston, Denver, Detroit, Indianapolis, Los Angeles, Milwaukee, and Omaha. Detroit and its neighbor Pontiac should receive especial study for their continuous carrying out of major projects under planning guidance.

Over a dozen important cities visited are now in course of securing comprehensive plans: Altoona, Pa., Dallas, Fort Worth and Houston, Tex., Jacksonville, Fla., Knoxville, Tenn., Little Rock, Ark., Tulsa and Oklahoma City, Sacramento, and New Orleans; and for some of these, parts in a series of plan reports have already been issued and improvements begun in accordance with their recommendations. It is significant that a large proportion of these cities are in the South and Southwest where interesting local traditions or great surrounding open spaces offer opportunities for distinctive and illuminating solutions of planning problems.

Plans Forgotten or Dropped

While it would be difficult to appraise the tangible results of many of the early plan reports for cities visited in the course of the field study, undoubtedly some of them contributed to the improvement of streets and parks and also to the stimulation of a civic consciousness which later bore fruit in plans prepared under the more scientific methods of to-day, as in Little Rock and Roanoke.*

Although some $50,000 was raised by private subscription to secure

* The Comprehensive City Plan for Roanoke has just been published, May, 1929.

the Burnham plan of San Francisco in 1905, practically none of it was carried out, although it did stimulate the creation of a civic center on another site. It is said in Massachusetts that a like sum was paid six or eight years ago by the city of Worcester to secure a comprehensive plan, which has been largely laid aside. No results are reported from the Oakland-Berkeley comprehensive plan of 1915. The early Kessler plan for Salt Lake City was not used as a guide.

An ambitious architectural plan was secured some years ago by Phoenix, Ariz., which that city reports has not been followed in a single detail. A plan rather in the grand manner for Lincoln, Neb., made during the "City Beautiful" movement, is said to have acted as a check on planning because of the impossibilities proposed. Later, different studies in Lincoln were also there reported to have had a deterrent effect. The City of Bridgeport, Conn., reports that its comprehensive plan secured in 1916 has had no effect on development and has been entirely superseded by subsequent special studies. The preliminary plan for New Bedford, Mass., did not produce effective results. Of recent comprehensive plans, local circumstances and an alleged lack of local point of view in preparation have combined to prevent the Trenton plan from being officially adopted. An example of the result of administrative indifference to a comprehensive plan prepared under the direction of an active city planning commission may be seen in Utica, N. Y., where, as noted in Chapter XVIII, after several years of lack of support on the part of the administration, the planning commission was actually allowed to disintegrate through failure to fill vacancies.

In all these cases various obstacles, inherent or political, as suggested in Chapter XVIII, have nullified to a large degree the effort involved in securing the plan, and in a few cases, justly or unjustly, actual enmities against technical planning have unfortunately been aroused. Planning commissions and their advisers will do well to make the plan as far as possible arise from the economic and social fabric of the city, — neither inappropriately ambitious, too elaborately documented, nor on the other hand too superficially prepared, — so that its practical and esthetic qualities will continue to appeal to city officials and citizens after the first flush of enthusiasm has worn away.

Peculiar Local Problems

In looking over the list of cities which have had comprehensive plans prepared or which are in course of securing them, we naturally find that

the major elements of these plans — discussed in the succeeding chapters — are fairly constant, although influenced, of course, by local individuality and local conditions. Certain special problems, too, run through a sufficient number to make it worth while to pause and consider these.

Very rugged topography necessitates bridges, viaducts, or tunnels in San Francisco, San Diego, Seattle, St. Paul, Duluth, Pittsburgh, Cincinnati, Akron, and Providence. In Altoona, Johnstown, Knoxville, and Kansas City, Mo., topography creates limitations as to the location of traffic-ways. In Asheville, N. C., wide boulevards are almost prohibited by the heavy cuts and fills required. Regrading in Pittsburgh, Seattle, and Asheville have stimulated the development of business areas. Attempts to superpose the gridiron subdivisions on the broken topography of Washington, San Francisco, and El Paso have caused difficult city planning problems. Milwaukee, Portland, Ore., and Rochester are divided by rivers which have in each case produced the planning problem of connecting two districts almost as distinct as two cities. In Madison, Wis., the lakes, and in Norfolk, Va., the sea and numerous inlets, concentrate traffic in the approaches to the city. In Wichita, Houston, and Des Moines difficult drainage problems arise from lack of variation in levels; New Orleans has to pump drainage water away because the city lies in a basin below normal water level of both the Mississippi River and Lake Pontchartrain, and in addition has little earth available for grading.

In New Orleans and nearly thirty other cities visited there exist considerable or acute problems of flood control. Aside from purely engineering measures for preventing damage to the city and surrounding region, there are several examples of combinations of purposes in cities developing comprehensive plans. The first great achievement of the St. Louis City Plan Commission was the River des Peres improvement, a measure of flood prevention and constructive city planning. In Portland, Ore., a sea wall over a mile long will be developed with an intercepting sewer behind, with a 25-foot promenade on top, and possibly also with a double line of interurban cars to relieve central district streets. The cost of about $2,500,000 is being assessed against benefited property, and there is expectation that a blighted (former retail) district will be revived. In Schenectady, N. Y., a dike along the Mohawk River is to be topped by a road removed at the expense of the General Electric Company from a position blocking plant extension, thus giving the city a river drive. In El Paso, there is a plan to develop a scenic drive along the dikes when these have been readjusted in accordance with expected studies from an

international boundary commission now at work. In Wichita, flood prevention work has been closely allied to planning, since two-thirds of the city is situated on the flat flood plain of the Arkansas River, and, as a flood prevention measure, river straightening and channel widening on a large scale have been necessary. In Oklahoma City the serious flood problem will be considered in the comprehensive Hare and Hare plan now in preparation, coincidently with United States Government studies. In Los Angeles County the flood control commission preceded the Regional Planning Commission. In Hartford, Conn., flood prevention and the development of industrial and airport sites are combined in recent studies. The Orleans Levee Board is combining protection of the City of New Orleans from river and lake floods with the development of the shores of Lake Pontchartrain into parks and residential sites.

When we think of great disasters which have befallen American cities, the Johnstown Flood, the San Francisco earthquake and fire, the Baltimore fire, the Santa Barbara earthquake, and the St. Louis tornado stand out in our minds in direct relation to city planning. The new Johnstown is a planned city. San Francisco, however, as we have just noted, failed to take advantage of the comprehensive Burnham plan secured only a year before some 2381 acres of city buildings were destroyed in 1906: only a very few isolated features of the Burnham plan were ever constructed. In Baltimore, however, after the fire of 1904, the rebuilding plans of the Burnt District Commission were largely carried out. In Santa Barbara, although the area of disaster was not great enough to cause plan rearrangements, the destruction of business buildings offered an opportunity which was seized upon to create a harmonious architectural shopping center which has remoulded the heart of the city to its original Spanish traditions. The St. Louis tornado, although destroying $22,000,000 of property, struck through so narrow a path that only very local advantage could be taken of areas razed, for an occasional playground or minor rearrangement. Very recently the Fall River fire called to mind the comprehensive Shurtleff plan to which the City Planning Board turned for guidance, achieving some improvement but not to the extent first hoped.

In addition to striking physical conditions brought about by forces of nature, the individual activities of man have created planning problems for several cities where great platted areas lie undeveloped, as in Bismarck, N. D., Fort Worth, Tex., or Tacoma, Wash., or where excessively large blocks make interior use a problem as in Salt Lake City.

Racial population groups, too, create planning problems as in most of the cities of the South and Southwest, but aside from public provision for segregation in schools and playgrounds, and some slight public consideration of provision for negro housing,* most of these problems are being solved not officially but by mutual consent and by private restrictions in deeds which are legal under the constitution of the United States as racial zoning is not. Public opinion is the real means to be relied on for bringing about an amicable result.

The Plan in the Public Mind

In discussing the support for the work of planning commissions, in Chapter III, mention was made of a rather general public knowledge of planning activities; and in Chapter VI discussion of educational methods revealed public interest aroused to a high degree in many communities.

An analysis of the comments in cities having or in course of securing comprehensive plans showed that only a very few reported otherwise than "the plan is very widely known," or "universally known," or "everyone knows about it." In one or two cities where considerable progress has been made in carrying out plan features, zoning was said to be known even though the comprehensive plan was not, but the progress in these cases can be definitely attributed to certain officials in whom there is public confidence. Lack of public knowledge, however, has usually resulted in lack of planning progress, as in Bridgeport, Conn., Newport, R. I., Lansing, Mich., and Paterson, N. J.

It may be assumed that where a city plan is now generally known, it is favorably known except among certain special interests. Mr. Charles A. Beard in an article in the *Yale Review* has suggested that a study of interests for and against city plan projects would reveal some of the social conflicts involved in community development. We find striking instances of this scattered here and there. In Detroit and Philadelphia, groups of downtown property owners have frustrated the desires of thousands of home owners for zoning. In Louisville, Ky., the billboard interests are opposing comprehensive zoning regulations for which civic organizations are working. In Portland, Ore., certain building promoters have opposed single-family districts because of their desires to locate apartments anywhere. In St. Louis an organization of property owners has repeatedly defied the expressed intention of the citizens and

* It is worth noting that in one Southern city where there had been considerable difficulty caused by moving of negroes into white districts, paving the streets in negro localities seemed to fill the desire previously met only by moving.

city government to develop the civic plaza according to plan. In Schenectady organized opposition has been directed against the relief of congestion through opening up new business centers. In numerous planned cities, individual property owners, or little groups of them, spring up constantly to oppose specific projects on selfish or short-sighted grounds.

It is in the cities which are trying to obtain city plans that some of the most deep-seated conflicts occur, conflicts less of special interests than of underlying attitudes, conflicts of energy and vision on the part of a few leaders against ignorance and indifference and conservatism on the part of politicians and citizens not civic-minded. Such social conflicts in less degree go on constantly in cities provided with plans, and a record of victories may be credited to planning commissions for the larger number of the projects accomplished.

This appears particularly in the answer of Chicago to a question asked in all the planned cities visited, regarding the effect of successful improvements on securing public support for more. To our surprise the Chicago answer was that one improvement seemed to have no helpful effect: each improvement has been as hard a fight as its predecessors. However, this was by no means a common experience in cities which have really made progress in carrying out plans. The consensus of opinion was decidedly that each successful improvement paved the way for more. Among cities which reported such a favorable effect were Asheville, N. C., Akron and Cleveland, Dallas and El Paso, Denver, Detroit, Johnstown, Pa., Kenosha and Madison, Wis., Omaha, Oklahoma City and Ponca City, Pittsburgh, Providence, Rochester, San Diego, New Haven, Conn., and Springfield, Mass. Comments were made in Minneapolis that the prestige of the city planning commission was increased; in Milwaukee that after the lake shore improvement was successfully accomplished, people apologized for having opposed it; in St. Paul that the first 56-foot roadway in the city sold the idea; in Grand Rapids that after an eight-years' fight for a widening finished in October, 1928, property owners are already petitioning for the widening of an additional mile along the same street; in Memphis, that several earlier street connections and widenings have given people confidence in the plan and made it easier for the planning commission to secure support for projects less obviously desirable.

It has occurred to students of city planning to wonder whether the early park system plans for cities directly stimulated other later planning improvements. In Chicago, Baltimore, Oklahoma City, Dallas, Fort Worth, Houston, El Paso, Grand Rapids, Indianapolis, Madison, Min-

neapolis and St. Paul, Omaha, Providence, Rochester, and Washington, a directly traceable favorable influence on securing other improvements was reported. In Cincinnati, the fear some years ago that a city plan would interfere with the park plan blocked city planning progress for a time. In Detroit, Belle Isle Park has made the public feel that additional park and waterfront areas are not needed. In Council Bluffs, Ia., and Kansas City, Mo., parks have really been a deterrent to other improvements because the public has tended to feel self-satisfied.

The varying effects of similar improvements in different cities show how complex are the problems of practical politics and popular psychology, and how necessary it is not to jump at conclusions as to inevitable causes and effects, on the basis of single or even multiplied instances.

Planning Reveals Neglected Opportunities

Observation of successful results of planning in many cities calls attention to neglected opportunities both in cities without plans and in those where progress is being made in certain directions. In nearly every city visited, the officials or citizens interviewed had ideas as to city defects which needed planned remedies.

Fifteen cities felt that opportunities to create a civic center had been neglected or misused, among them several cities with comprehensive plans, such as Chattanooga, Knoxville, San Diego, Topeka, and Wichita. In Camden the location of the new city hall away from the already acquired civic center appeared to be an opportunity lost. The new bridge in Springfield, Mass., missed the chance to form a composition with the fine municipal group.

Many cities reported that they had neglected to provide adequately for parks and playgrounds. In Baltimore, Cincinnati, Pittsburgh, Evansville, Ind., Boulder, Colo., Fall River and New Bedford, Mass., and White Plains, N. Y., more neighborhood parks and children's playgrounds are needed, and many earlier opportunities to provide economically for some of these have now been lost. In Cleveland, Detroit, and Hartford the development of suburban territory without adequate open areas is reported unfortunate. In Atlanta, Duluth, and Greensboro the need is felt of centrally located park area, — in Atlanta considered practically impossible to attain. Forty cities reported badly neglected opportunities of stream, shore, and beach development for recreational use, either because of stream pollution or because of lack of foresight in securing ownership of shores.

In Duluth too little land was acquired along ravines, — thus preventing the construction of a public drive along the top of the slope. A number of cities reported lack of parkways or poor distribution of parks and inadequate connections, as in Chattanooga, Dayton, Jacksonville, Topeka, and Trenton. Various instances were cited of specific offers or opportunities years ago to secure the very areas now desired and expensive or impossible to obtain. In Los Angeles regret was expressed over the loss of natural drainage channels, now covered and built over, which could have been used for parkways. In San Diego and Washington the destruction of natural features by platting rough topography inappropriate for residential development has prevented desirable future parks.

In the whole matter of controlling land subdivision and new plats, many cities recognized valuable opportunities lost and heavy later expense entailed in too narrow streets, poor connections, lack of adaptation to topography, and creation of blocks of undesirable sizes. A very large number of cities regretted lost opportunities of street widenings and straightenings, of radial routes, and circumferentials.

Port development opportunities were reported neglected in Detroit and Cleveland. In Detroit, too, ten years ago the City Plan Commission recommended an airport site which, it is now admitted, would have been satisfactory in every way, but the commission's advice was not followed and the city is still looking for a site which now must be much farther from the center of the city. Several cities reported lack of adequate provision for sewerage and storm water drainage, and one regretted that storm sewers had not preceded new paving. Lack of foresight in street tree planting was mentioned in several cities. The neglect of zoning in those cities still without its protection was a situation everywhere recognized as needing prompt action. In St. Paul, failure to locate buildings on sightly spots naturally provided by the topography is counted a distinct loss to civic appearance.

In several cities lack of effort directed toward public education was deemed an opportunity overlooked; and several, including Kansas City, Mo., Omaha, and Savannah, considered their greatest opportunity neglected so far to have been the preparation of a comprehensive city plan.

It is undoubtedly due to the meetings of the National Conference on City Planning and State meetings, and to the periodicals featuring illustrated articles on planning subjects, that cities are becoming increasingly alive to their own neglected opportunities, as they see what is actually achieved elsewhere.

CHAPTER X

CONTROL OF PLATTING AND LAND SUBDIVISION

Subdivision Control in Comprehensive Planning

THE control of undeveloped land within and around urban communities offers the greatest opportunity for constructive planning, as distinguished from planning for the correction of defects in the structure of the city. Wise measures of control can produce types of development in new areas adapted to twentieth-century standards of light and air and space, and consciously directed toward developing desirable community life.

"To improve uneconomic, unattractive, unhealthy, and socially wasteful conditions, and to prevent their creation, there must be effective control of land subdivision and building development. . . . There should be prepared, officially adopted, actually developed and enforced a comprehensive 'master plan' for every community. . . . In making the master plan regard should be had to the need for well balanced growth on the most economic lines, and to the spread or distribution of the population over the entire community and its environs. . . . Subdivision control should be directed toward a thorough coördination between the master plan, the subdivision layout, and the proposed building developments."

This statement of principles is taken from a report by a committee of the American City Planning Institute, "Control of Land Subdivision and Building Development,"* which may be used as a criterion by planning commissions in determining whether platting regulations are producing really constructive results or whether the requirements are below what the community has the right and duty to prescribe.

The recent court decisions in Michigan (Ridgefield Land Company, Detroit) and Ohio (Youngstown) attest judicial recognition of the community's right to direct city growth so that suitable environment for home life may be provided. The public recognition of platting control is widespread: the operation of subdivision regulations is one of the chief activities of planning commissions in the United States. In the field

* Published in *City Planning*, July, 1928, and reprinted.

study we found that the East is more hesitant than the West in applying plat control, partly because comprehensive city planning from the ground up has taken firmer hold as a department of community activity in the newer cities of the West, with their greater undeveloped area, than in the more densely built-up older cities of the East.

Conformity to the master plan of the city is the primary requirement of new subdivisions. Unless there is a comprehensive city plan, including major streets, sewerage and drainage, zoning, and parks, it is impossible to adjust the proposed subdivision to future community growth. A large number of municipalities and several counties now control subdivisions in direct relation to city plans already prepared, or in course of preparation. Still others approve subdivisions in accordance with major street plans. There are, however, a number of cities in which subdivision control is not based on comprehensive planning; and although some minor good results may be thus obtained, there will always be lacking the permanence and stability encouraged by control properly related to all the essential elements in the community.

It is scarcely necessary to repeat here the basic relationships ably stated in the American City Planning Institute principles. In the cities visited during the field study, it was easy to see how intimately the development of new highways and transit facilities is related to the location, character, and requirements of suburban subdivisions; how regional drainage and sewerage plans recognizing topography may influence the type of residential development desirable and economical; how zoning determines future business centers and the possible density of residential development; how a park and recreation plan can guide subdividers in reserving open spaces in the right place and often encourage them to preserve natural features such as stream valleys or look-off points; how by the surveys, made for the preparation of city plans, the wastefulness of scattering "wild-cat" subdivisions has been revealed, resulting in the stricter requirements in platting regulations for responsible provision by subdividers of streets and utilities.

When platting control has been a part of comprehensive planning it has already worked toward producing "an intelligent and socially-constructive use of the land."

Area of Control

"Subdivision control should be exercised both within a municipality and for a sufficient distance outside, to insure stability of development

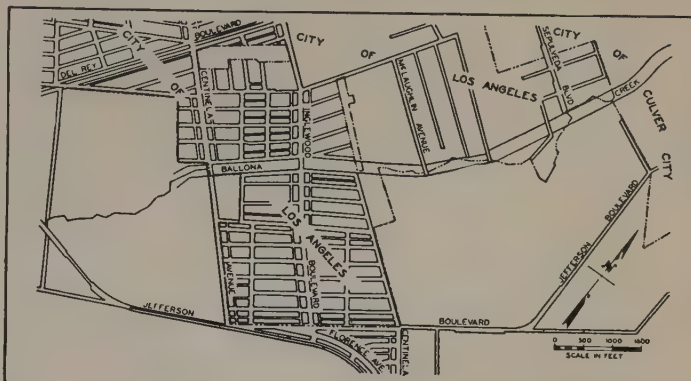
and a reasonable expansion of utility services." This principle is promoted by the five-mile requirements recommended in the Department of Commerce Standard City Planning Enabling Act. Nearly half the states authorize municipalities to exercise extra-territorial control of subdivisions. Some notes on areas of control are given in the Appendix. The strip of surrounding territory over which municipalities may exercise platting jurisdiction varies in width from an ineffectual half mile in Wilmington, Del., to ten miles in Norfolk, Va.

As county and regional planning develops, there is a natural and desirable tendency to decrease the jurisdiction of the city planning commission when the county planning commission becomes prepared to exercise this control. In Milwaukee County, Wis., Allegheny County, Pa., Glynn County, Ga., and Los Angeles and Santa Barbara counties, Cal., the platting jurisdiction of the county includes all unincorporated territory. In Michigan, Wayne County has been so strict in requiring conformity to the Master Plan, that the city of Detroit has not had to enforce the three-mile provision very rigidly. Close coöperation in Lucas County, Ohio, exists between city and county planning commissions in controlling plats.

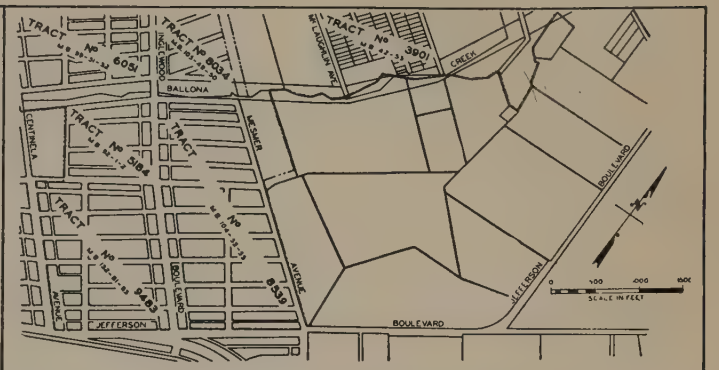
Where the city planning commission is the strong body, county coöperation may secure an area of control wider than that named by law, as illustrated by Des Moines, with a one-mile limit of jurisdiction, but frequent voluntary submission by the county engineer to the Des Moines city planning commission of plats outside this area. In Oklahoma City where platting in the three-mile strip is controlled by a regional planning commission interlocking with the city planning commission, many subdividers beyond this area ask for the approval of the regional planning commission because it is a valuable sales argument. In Rochester the approval of plats appropriately within the jurisdiction of the city planning commission is required by the county clerk who will not file such plats unapproved by the city planning commission; and in Syracuse the county court sometimes insists on planning commission approval beyond the three-mile limit.

Outside the City of Memphis the control of plats for a five-mile strip is jointly exercised by the city planning commission and county commissioners, but there is no control of lot sizes outside the city limits. Atlanta is in the curious situation of controlling six miles outside the city limits in Fulton County, but being without any extra-territorial control in DeKalb County.

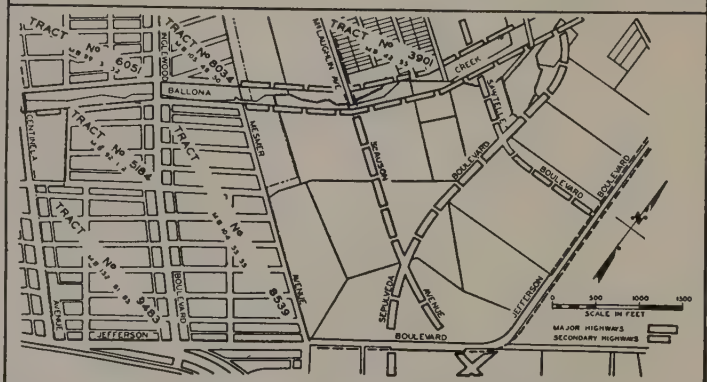
A STUDY IN LAND SUBDIVISION



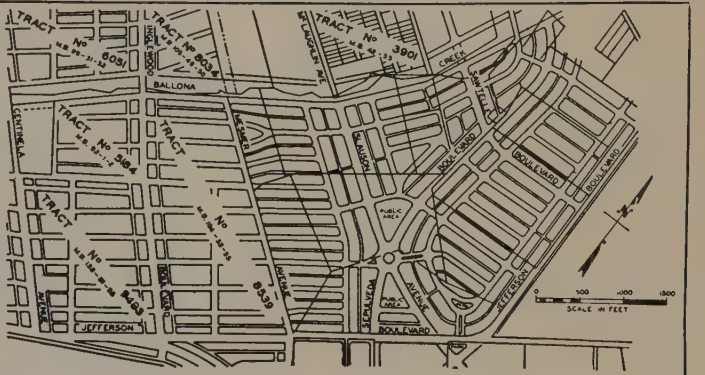
1. LOCATION WITH REFERENCE TO EXISTING DEVELOPMENT



2. DIVISION INTO SEPARATE OWNERSHIPS



3. THE HIGHWAY PLAN - EXISTING AND PROPOSED



4. THE STREET AND BLOCK PLAN - PUBLIC AREAS RESERVED

PREPARED BY THE SUBDIVISION SECTION

THE REGIONAL PLANNING COMMISSION

COUNTY OF LOS ANGELES

Courtesy of Los Angeles County Regional Planning Commission

When a comprehensive plan (now under way) for the city and surrounding territory shall have been prepared, Minneapolis is authorized to exercise control three miles outside the city limits, although now there is no control except within the city. This proviso suggests the key to the situation, — the reasonableness of extra-territorial control when in accordance with a comprehensive plan. The recent Ohio decision, involving a fee for plat submission outside the city limits of Youngstown, upholds the principle that a planning commission has extra-territorial jurisdiction.

Requirements in Platting Regulations

The codification of requirements in the exercise of platting control not only simplifies procedure and makes for uniformity and definiteness, of standards, from the point of view of the subdivider, but also it forces the planning commission to formulate and develop its own criteria in judging how far practice is measuring up to social and economic objectives.

A very considerable number of cities, including several with active planning commissions, notably Buffalo, Dallas, Fort Worth, Duluth, Providence, Johnstown, Pa., Madison, Wis., New Bedford, Mass., and Norfolk, Va., have no definitely formulated platting regulations. Some California cities, notably San Francisco, depend on the state law for new maps and subdivisions, which contains many detailed requirements ordinarily found in municipal platting regulations.

The specific requirements made in formulated subdivision regulations are of such general interest that a detailed analysis of forty examples has been made by the field representative of the Harvard study, Mr. Howard K. Menhinick, which is given in full in the Appendix. For his analysis, regulations of various types were selected, including those of five counties and the Chicago Regional Planning Association's recommended Model Ordinance.

The subjects covered by platting regulations divide themselves into three main groups, dealing with procedure in the submission of plats, with requirements for streets and utilities, and with requirements for lots; in addition requirements for open spaces, and relation to zoning ordinance are found in some regulations.

There has been an increasing tendency to require preliminary submission of plats, in order that the planning commission may aid the developer by suggestions before his scheme reaches too definitive a form:

in fact the submission of a preliminary plat is now almost a standard requirement.

The regulations relating to streets include the adjustment of proposed streets to the adjoining street system, street alignment, street intersections and corner radii, the carrying of streets to boundary lines, relation of streets to railroads, treatment of dead-end streets, street and roadway widths, building lines, street grades, street and subdivision names, street planting, alleys and easements, and provision of utilities.

In all recent platting regulations, the required width of major streets is the width shown on the major street plan. There is an increasing tendency in platting regulations to classify street widths in accordance with planned street uses, — major, secondary, business, minor residential, and so on.

The establishment of street lines for street widening purposes in platting regulations, under the police power, seems to be the coming method, as pointed out by Mr. Bettman in his paper at the 1929 National Conference on City Planning. Building lines are frequently established in platting regulations, working with or without front-yard zoning regulations, but this matter is still in the controversial stage, due to a conflict in theory. Mr. Bettman pointed out a difference in essence between *zoning front-yard building lines* and *setbacks in platting regulations*, because the zoning ordinance is subject to amendment and the plat is a recorded title instrument. We must look for further clarification of practice in this respect.

The requirements for installation of utilities bear such a direct relation to the actual enforcement of platting control that they will be discussed later in this chapter in connection with other methods of preventing evasions of the community's control over future growth.

The block and lot requirements specify sizes of blocks and of lots, and the treatment of corner lots and lots with double frontage. There is a strong tendency to permit blocks adapted to use and topography within a specified range of length, and to encourage longer blocks than were formerly permitted in standard gridiron layouts. The regulation of lot sizes in relation to zoning districts is the most desirable form of requirement, to promote the purposes of comprehensive planning. By far the majority of cities have established a minimum lot width of 40 feet. Some regulations permit business lots to be less. Lot depths are regulated according to local custom to work with other regulations to prevent the possibility of rear dwellings.

Few platting regulations other than Oklahoma City compel the dedication of open spaces for parks and playgrounds but several recommend that due consideration be given to the dedication or reservation of suitable sites for schools and recreation areas. The Santa Barbara regulations specify consideration of natural features, and the Detroit regulations prohibit land unsuitable for platting (for instance, certain property along streams) from being subdivided.

The stated relations of platting and zoning regulations will be discussed at the end of this chapter.

If a planning commission is contemplating the preparation of a set of subdivision regulations, we recommend that those issued by the following cities and counties especially should be studied: City of Milwaukee Platting Guide (a pamphlet which contains the most instructive information calculated to produce intelligent action by developers) and the printed regulations of Cincinnati, O., and of Riverside, Cal. (which was a pioneer in incorporating full explanatory notes); also the Chicago Regional Planning Association's proposed "Ordinance Regulating the Subdivision of Land," and the Santa Barbara County regulations, both available in mimeographed form. The requirements enumerated in these regulations should be studied in connection with the theory of land subdivision control and suggested platting rules set forth by Messrs. Swan and Tuttle in their monograph "Land Subdivision and the City Plan," a supplement to the *National Municipal Review*, July, 1925, which has had an extensive influence on the content and form of platting regulations throughout the country.

Planning Commission Work for Plat Control and Improvement

Planning commissions in this country are not merely working to secure a compliance with minimum requirements: there is a marked constructive tendency toward replatting of land already unsuitably platted but unbuilt upon, toward raising standards by issuing typical plans for the development of new areas, as well as toward intelligent modification of plans submitted by developers with a view to securing more individuality of development and greater adaptation to local circumstances.

The administration of platting control occupies a large portion of the time of planning commissions in cities where there is still undeveloped land within municipal boundaries or where extra-territorial control may

be exercised. County and regional planning commissions have been quick to seize the opportunity to control and direct new development.

The planning commissions of Cincinnati, Cleveland, Akron, and Toledo, in Ohio, have passed on very considerable numbers of plats, and suggested many modifications as conditional to acceptance. Platting control has been successfully exercised during a period of exceptionally rapid development in Detroit and Los Angeles, involving large areas of undeveloped territory. The Milwaukee regulations have also operated to control considerable areas with a high degree of relationship to the city plan, and the Madison, Wis., city planning commission has dealt with an area averaging five square miles annually. Among other cities where platting control has been applied to considerable areas are St. Paul, Sacramento, San Diego, Evansville, Ind., Fort Worth, Tex., Greensboro, N. C., Memphis, Tenn., and the Maryland-National Capital Region.

The necessity for control of subdivisions in accordance with city plans was strikingly brought to our attention in Jacksonville, Fla., where many boom plats have been revoked by the Board of County Commissioners. Contrast of control and lack of control outside city limits was striking in St. Louis, in view of the planning commission's intelligent work in raising the standard of subdivisions within the city. The returns from the field study indicate that many cities now largely built up within municipal boundaries must exercise extra-territorial control, if platting regulations are to have any practical effect in guiding city growth.

Cincinnati offers some of the most valuable examples of the modifications suggested in plats submitted by developers to planning commissions, with a view to harmonizing the development of entire sections and to coördinating the street layout of subdivisions with the city plan. A typical illustration of modifications was given in "Municipal Activities," the Cincinnati annual city report for 1927.*

The making of typical subdivision plans or plans for key areas is a constructive activity for which several planning commissions have been distinguished. The Milwaukee County Regional Planning Department has made subdivision plans for areas adjacent to the proposed parkway system hoping to procure a better development than the unrelated tangle found in many parts of the country, — illustrated in the annual reports of the Department. The County Department is now making tentative

* A model set of subdivision regulations drawn up in conjunction with the Better Housing League and county health commissioner for the benefit of communities in Hamilton County represents another important phase of the Cincinnati City Planning Commission work, and will be a valuable asset to the Hamilton County Planning Commission just established.

platting layouts of each town to serve as suggestions, sometimes securing coöperation of small property owners in agreeing on a unified scheme. The Board of Public Land Commissioners of the City of Milwaukee has made suggested plans for residential, industrial, and business development.

For planning commissions in several Indiana cities, Mr. L. V. Sheridan has made typical subdivision plans to serve as guides in their approval of plats. In the Chicago region, Mr. J. L. Crane, Jr., has prepared for commissions in suburban towns, a considerable number of typical detailed subdivision plans coördinated with local town plans, which suggest to subdividers a better type of development than that to which they are accustomed.

In Kenosha, Wis., the planning commission has a complete major and minor street plan for all the area of control not yet subdivided, to which developers generally have to conform.

The Schenectady City Planning Commission has planned all future subdivisions. The City Planning Department of Pittsburgh has the majority of large areas which are still undeveloped tentatively platted, to meet an urgent need, since the most difficult sites topographically have been left to the last as the residential sections have grown. The tentative plats serve to show the developer what may be reasonably done, and with his coöperation, the unfortunate types of hillside subdivision may be avoided. In Richmond, Va., the Planning Department in the earlier period of its work made individual subdivision plans as suggestions to developers. The St. Paul City Planning Board often lays out plats to show how subdividing should be done.

The Detroit City Plan Commission makes some subdivision plans for peculiarly difficult sites; and like many other planning commissions, the Houston commission freely gives aid in special cases. The Dallas City Plan Commission makes typical plans. Many suggestions have been made by the Regional Planning Commission of Los Angeles County, using existing plans as examples; and the City of Los Angeles planning commission has made typical subdivision plans. Typical subdivision plans for Des Moines and several other cities have been made by the consultant, accompanying comprehensive city plans. Sacramento expects to have typical plats prepared, related to the city plan, — especially desirable since the city is said to have in the areas outside its original plats some of the worst examples in the country of uncoördinated street development. In Wichita and Oklahoma City, skeleton plans are to

be drawn for the area outside the city limits controlled by the platting regulations.

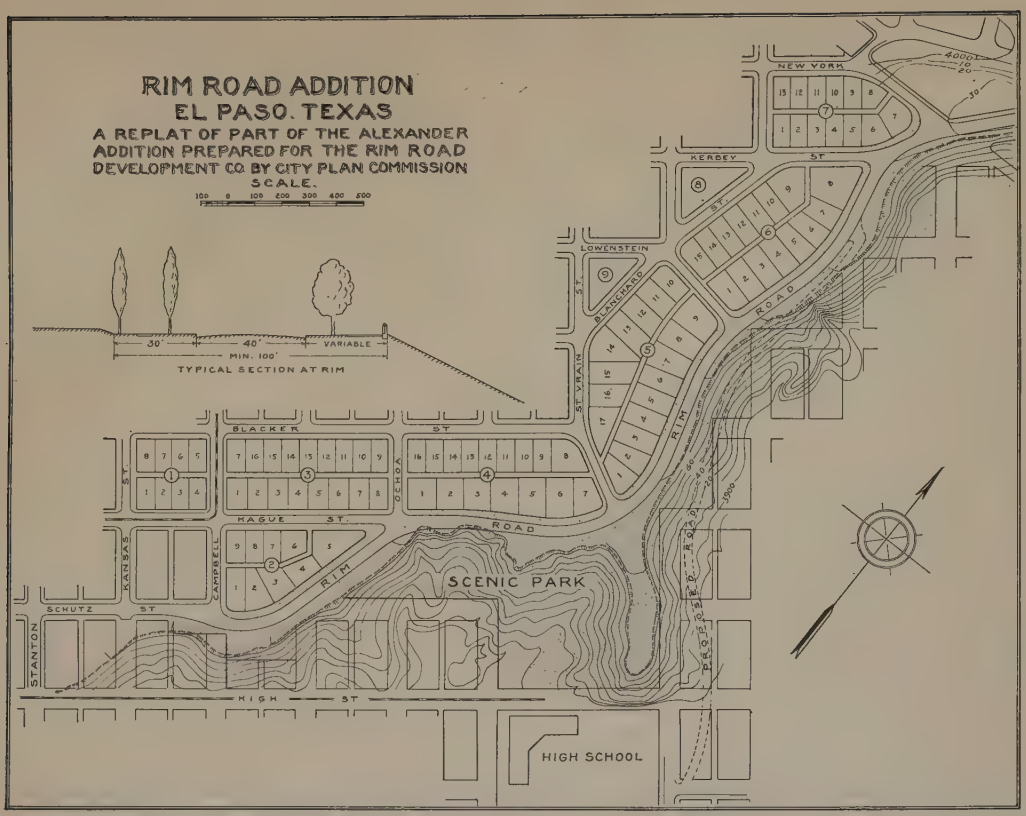
The studies for the Regional Plan of New York conducted by Mr. Robert Whitten * and also by Mr. Clarence Perry to produce desirable types of neighborhood units have a consistent social and economic basis which makes them of vital interest to planning commissions struggling with more purely local problems.

The planning commissions of St. Louis and Cincinnati have replatted free of cost various wrongly platted subdivisions especially in the earlier period of their work for plat control. The Duluth planning commission, in coöperation with owners, is now active in replatting undeveloped areas originally laid out according to poorly-conceived schemes. In one section the Duluth commission made a final plat plan for property to be sold as acreage, so arranging the street system that the property can later be subdivided effectively into small lots. In Duluth advance consultation with utility companies prior to approval of plats has worked advantageously. The replanning of undeveloped subdivisions in Schenectady has resulted in the saving of a large amount of property values threatened with destruction by the original subdivision plans.

The replatting of gridirons superimposed on rough ground is illustrated notably in San Francisco and El Paso. In San Francisco the city engineer has secured the coöperation of hundreds of owners in complete replats of areas impossible to develop economically as originally laid out. In El Paso, the replatting by the planning commission † of land on the side of the steep mesa will result in a scenic "Rim Drive" and a desirable residential district. In Washington, D. C., the work of the National Capital Park and Planning Commission in revising the street system is effecting substantial economies, as well as promoting appropriate development.

In addition to replatting and the making of typical layouts, there have been several recent studies by planning commissions directed toward a more efficient arrangement of streets, parking space, and shops in local business centers. Of these, the treatments suggested by the commissions of Milwaukee and Akron have aroused general interest, and are both illustrated in *City Planning*, 1929. The city planning commission in Dayton has been securing the coöperation of realtors in platting local business centers with additional street width for parking, building setbacks, and restriction of lots to business purposes in consideration for

* Mr. Whitten's study was in coöperation with the University of Syracuse.
† Described in *City Planning*, July, 1929.



Courtesy of W. E. Stockwell, City Plan Engineer, El Paso

Originally platted in a checkerboard up the steep escarpment to the mesa

Courtesy of M. M. O'Shaughnessy, City Engineer, San Francisco

GOLDEN GATE HEIGHTS, SAN FRANCISCO

Originally laid out in rectangular blocks, and re-subdivided by coöperation of 275 owners

REPLATTING OF ROUGH TOPOGRAPHY

permission to lay out 25-foot lots instead of the usual 40-foot minimum in these business centers.

The work of the Chicago Regional Planning Association in setting up standards for platting regulations and for details of subdivisions (for example in the proposed "Conduit Code" recommended for use in the communities of the region), suggests the field of leadership which may enable regional and county planning agencies to secure quality and permanence in the development of new districts.

Methods of Preventing Evasion of Plat Control

Competent legal authorities believe that it is constitutional for municipalities to forbid sewer and water departments to furnish services to unapproved plats.* This power, joined with power to refuse building permits in plats not approved by the planning commission, gives the community real authority in the actual enforcement of standards for new neighborhoods.

It is usual to prohibit the recording of subdivision plats which have not received the approval of the planning commission or other constituted authority, — on the legal basis that the privilege of using the state's recording system may be withheld from those subdividers who are not willing to submit their plans of development to the commission. Many states prohibit the sale of lots from a plat unless the plat has been approved and recorded. Some state legislation provides that deeds of property in unapproved subdivisions may not be recorded, but this no doubt would be interpreted to apply only to deeds which specify the property by lot number or other reference to a plat.

If vendors can sell by metes and bounds, and purchasers can secure building permits and utility services, there are no real teeth in platting regulations to catch the unscrupulous subdivider. Milwaukee County requires a *written notice* from the vendor to the prospective purchaser "that the lot or parcel of land to be sold abuts on a private street, alley, way or common that has not been dedicated on a duly approved plat or is not required to be maintained as such by either said town or county." † Since in practice this written notice must accompany the deed, there is a visible deterrent to the would-be purchaser from investing in property

* In the Michigan case, Allen *vs.* Stockwell, the court held that sewer installation could be required in the City of Pontiac as a condition of plat approval.

† Laws of Wisconsin, 1927, 236.035.

likely to prove unusable. Education of the public against purchase of land by metes and bounds is a highly desirable part of the educational work of city planning commissions.

Subdivision control includes plats with "private" streets shown on the plat, but not dedicated. The planning commission of the city of Cincinnati successfully resisted a contention that such a plat was entitled to be recorded without submission to the planning commission, in the case entitled "In the matter of Title Registration Application of William Sullivan," Court of Common Pleas of Hamilton County. This decision, favorable to the city planning commission, thus defeated the device of evading subdivision control by calling the streets "private."

Only a few cities have yet employed the method of preventing building on unapproved plats by prohibiting the building commissioner from issuing permits. In Des Moines, Grand Rapids, Memphis, Raleigh, and Ponca City, Okla., the building commissioner cannot issue permits for construction on unapproved plats. In Duluth, he cannot issue permits for houses that do not front on public streets, and streets are not public until accepted through plat approval; further, no building permits can be issued for lots sold by metes and bounds, unless the house proposed has frontage on a public street. In Norfolk, Va., the building commissioner cannot issue permits unless he has been given street lines by the city engineer, which effectually prevents permits on unapproved plats. In Westerly, R. I., the building commissioner may issue permits for only four lots in an unapproved plat. In the Maryland-National Capital District, no building permit is legal without the signature of the planning commission, which is refused if the lot is in a plat not already approved by the commission. In New Bedford, Mass., Pittsburgh, and St. Paul the building commissioner does not issue permits in unapproved plats; in St. Paul he also refuses them on metes and bounds lots. In Schenectady, although the building commissioner may issue permits in unapproved plats, he may not do so inside the lines of mapped streets. In Rochester, N. Y., the difficulties of transferring property in unapproved plats practically obviates the necessity for control of permits issued by the building commissioner. The other cities visited have apparently not attempted to refuse building permits in unapproved plats, relying on other methods, — such as refusing to install utilities.

In a considerable number of cities it was reported that utilities cannot be furnished to plats sold off by metes and bounds, among them Altoona, Pa., Asheville, Durham, Greensboro and Raleigh, N. C., Fort Worth,

Tex., Harrisburg, Pa., Kenosha, Wis., Knoxville, Tenn., Madison, Wis., New Bedford, Mass., Norfolk, Va., Pittsburgh, Pa., Rochester and Schenectady, N. Y., Los Angeles, St. Paul, and the Maryland-National Capital Region. In Detroit, utilities are not so furnished. In Memphis, utilities will only be furnished to a plat sold off by metes and bounds if it conforms with requirements of the planning commission. A larger number of cities can refuse utilities to unapproved plats, or to streets not accepted for public use by the city.

The refusal of utilities to neighborhoods partly settled produces social and health conditions inimical to community welfare. For this reason, other methods should also be employed to prevent innocent victims from getting into such a plight and to prevent the city from ultimately being forced to supply utilities for hygienic reasons in areas which have failed to conform to the city plan.

The most enlightened practice, typified in that of Cincinnati, requires installation of utilities or guarantee of their installation, prior to the final approval of the plat. Asheville, N. C., prompted by unfortunate effects of the land boom, now requires utility installation before sale of lots. In Memphis utilities must be installed inside the city, but not outside. In Lansing, Mich., water and sewer can be required; in White Plains, N. Y., and El Paso, water only. In San Diego, water and street grading are required. Grading of streets and alleys is also required in Cincinnati, Canton, Cleveland, Des Moines, Detroit, Kenosha, and Memphis, as well as in the Chicago Regional Model Platting Ordinance adopted by several communities within the region. Some further notes on utility requirements necessary for approval of plats are given in Mr. Menhinick's study in the Appendix.

If close-built communities would follow the example of Cincinnati in refusing to approve plats or accept the dedication of any streets until water-mains, and sewers where necessary, are satisfactorily installed or guaranteed, and streets constructed to approved grade, many of the costly problems of scattering development and suburban slums would never arise. We need further study of the present operation of regulations to protect the community from unnecessary subdivision and to protect purchasers at the time of lot sales; and we need some extensive presentation of experience that will carry conviction and influence municipal authorities toward more effective control than the present frequent dependence on the trouble involved in metes and bounds sales and the voluntary coöperation of subdividers.

Coöperation of Real Estate Interests

The National Association of Real Estate Boards has heartily endorsed the principles of controlling plats and relating new subdivisions to comprehensive city plans. A committee of the Association worked jointly with the committee of the American City Planning Institute in formulating the principles already referred to. Repeated statements of the advantages of platting control have been made in publications and news releases from the National Association of Real Estate Boards, and state associations have reflected nationally-expressed support of planning and regulation in effective local publicity. The state associations of real estate boards in Arkansas and Montana are the major forces in creating interest in planning and in securing legislation in these states. The California Association of Real Estate Boards has promoted subdivision control in its state-wide city planning campaign. The new subdivision bureau of the National Association is assuming the background of city planning for its service to subdividers. Study and research in real estate development as related to city growth are represented by such publications as Professor E. M. Fisher's "Real Estate Subdividing Activity and Population Growth in Nine Urban Areas" (Michigan Business Studies), and those of the Institute of Land and Public Utility Economics, in Chicago.

As the Arkansas Association has pointed out, if no higher motive existed, men in the business of real estate are the only group whose purely selfish interests demand the study of city planning and land planning. Realtors' experience has convinced them that sound planning is good business and that poor types of subdivision result in social and economic losses; and, as business men, as well as good citizens, they are eager to promote and participate in the direction of community growth along more wholesome lines. In a large majority of the cities visited during the field study which have the power to control plats, there was an almost unanimous report of hearty coöperation from the real estate interests.

Influence of Large Scale Development Companies on Subdivision Standards

The pioneering work of large scale development companies in the last twenty years has set new standards for high-class subdivisions; and the war-time experiments of the United States Housing Corporation and Shipping Board — crystallizing earlier experience in large-scale

company housing — laid the groundwork for a distinctly more pleasant and satisfactory type of lower cost residential district.

As we point out in Chapter XVI, in discussing architectural control, the evolution of restrictive covenants, and also of some means of perpetuating control over the development of lots, has shown the country what can be done in securing high types of residential neighborhoods. The Roland Park Company subdivisions in Baltimore, the J. C. Nichols Company Country Club District in Kansas City, Mo., the Jemison Company developments in Birmingham, Ala., Forest Hills Gardens, L. I., Palos Verdes and Rancho Santa Fé in California, the recent Sea Island Company work in Glynn County, Ga., the park-like subdivisions in Dallas, Fort Worth, and Houston, developments in Asheville and several other North Carolina communities, suburban subdivisions in Detroit, Akron, Philadelphia, and Washington, are all large scale developments which, through unity of conception, planning, and management, have influenced smaller scale developments and stimulated greater attention to fundamental requirements for residential districts. The design of narrower residential streets adapted to topography, and planted with shade trees, the fitting of block sizes to special needs, the consideration of means to reduce mutual nuisance in details of house and garage location, have been reflected in the implications of platting regulations which planning commissions have had in mind when making suggestions for the improvement of stock type plats submitted for consideration.

More directly influencing the minimum requirements of platting regulations, however, are the standards evolved in low and medium cost housing, such as some of the United States Shipping Board and Housing Corporation towns of 1918–19, and the earlier developments of Morgan Park at Duluth and Goodyear Heights at Akron, The Bridgeport Housing Company at Bridgeport, the Better Homes Company at Cincinnati, and the pioneer Octavia Hill Association at Philadelphia. New towns such as Mariemont, O., and Longview, Wash., have given an object lesson in lot planning without the pressure of adjacent congestion. The well designed company housing villages for new industries in North Carolina and other parts of the South must have been eye-openers to older communities. Although some few of the low-cost housing developments in this country have struck working men as too fancy or too far removed from local tradition, most developments have been eagerly approved; and the standards of light and air and open space to which nation-wide publicity has been given have contributed to the public demand for

control of platting and zoning which is far more necessary for low-cost home neighborhoods, frequently developed without restrictions in deeds, than for the higher cost homes on larger lots.

Open Spaces in Plats

The movement to secure adequate open spaces in new subdivisions has been promoted on the one hand by leading realtors, notably the late William E. Harmon,* — who have learned by experience that no financial "sacrifice is involved in setting aside a reasonable amount of land in each subdivision," — and on the other hand by city planning commissions, through securing either dedication or reservation of areas designated for small parks on comprehensive recreation plans, or selected in general relation to the city plan at the time of subdivision.

Experience has shown both realtors and planning commissions that open land reserved or dedicated hit-or-miss may be a burden rather than an advantage, and that too small areas, especially within blocks, are found almost impossible to administer, as we suggest in Chapter XV. In warning planners and recreation leaders, at the National Recreation Congress in 1927, against indiscriminate reservation of open spaces, the President of the National Association of Real Estate Boards, Mr. C. C. Hieatt, said "I have heard the rule laid down that one acre in every ten in a subdivision ought to be set aside for public use. That sounds all right in theory, but it goes without saying that if you are subdividing a small tract of ten acres, you cannot cut out one acre and devote that to playgrounds without having, perhaps, a very illogical arrangement. All things of that kind ought to be done Under a Comprehensive City Plan that locates playgrounds and public spaces where they ought to be located, and then arrangements should be made with the developer to set aside a tract or make some contribution toward setting aside an appropriate location."

In Mr. Menhinick's study of requirements in platting regulations given in the Appendix there are some detailed notes showing that the trend is toward requiring that "due consideration should be given to the dedication of suitable sites for schools, parks and playgrounds in accordance with the city plan," rather than toward requiring that any stated percentage of the total area be set aside. Only a few cities *require* open spaces in plats. Kenosha, Wis., and Oklahoma City require five per cent but unsuitable pieces of land are not accepted. In Kenosha the

* See article by Mr. Harmon in *City Planning*, April, 1926.

dedications have usually been located according to the city plan; and where the city has desired a larger area than that to be dedicated, the city has purchased the additional area in the new subdivision.

This subject of open spaces in plats is of such general interest that practically all the comments made in the cities visited have been recorded in the Appendix.

The crux of the whole matter is the relation of reserved open spaces to comprehensive city and regional plans and to future use and maintenance. When developers see a comprehensive plan, voluntary dedications in harmony with it are far easier to secure than when arbitrary requirements are made, not visibly related to general community growth.

The legal powers of the city in reserving desired park areas free of buildings are exemplified in the State of New York planning laws, providing that parks may be designated on the official map along with streets. As Mr. Frank B. Williams has pointed out, the reservation of small parks and playgrounds is recognized ordinarily as a financial gain to a developer of a tract of land, and in the exceptional case he is not required to reserve it. In Schenectady where the New York law has operated with notable success, these open spaces are determined by the official plan regardless of subdivision boundaries, and, if not secured by dedication, are purchased and the cost assessed on the benefited district. In the Maryland-National Capital District, the planning commission often insists on reservations for parks, refusing building permits therein, on the understanding that the District will purchase the proposed park area when funds become available.

The expensive lessons of the past seen in the development of large areas of land without advance reservation of adequate recreation spaces are being well learned, and there is a very general tendency to coöperate between the planning agency of the community and the open-minded developer of land.

Relation of Platting, Zoning, and Private Restrictions

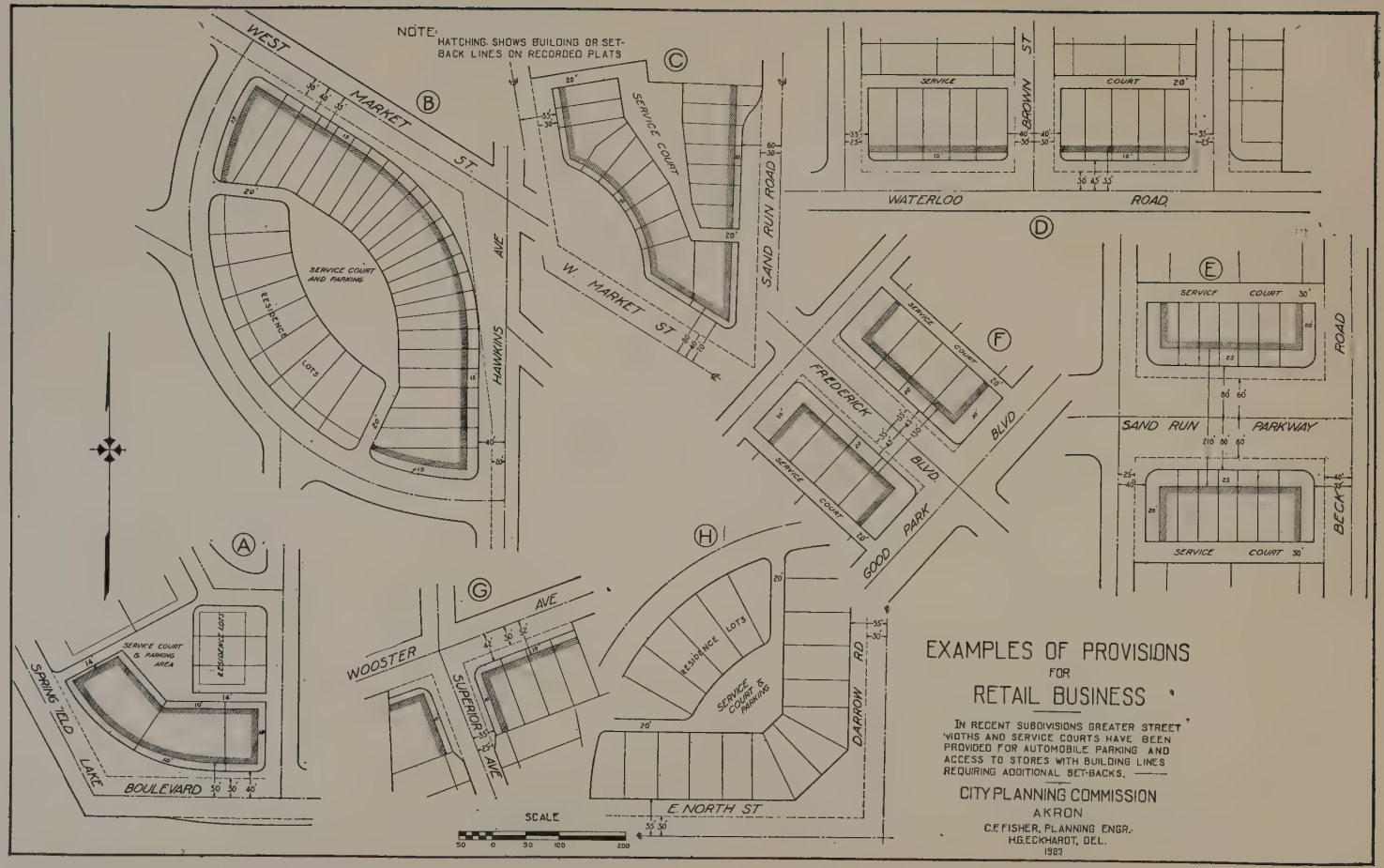
The intimate relation of zoning and platting was legally recognized by the State of New York in the general planning laws of 1926–27, which permit planning commissions to accommodate developers by making reasonable zoning changes for their plats. The Department of Commerce Standard City Planning Enabling Act also embodies this provision for flexibility. In the studies of Mr. Robert Whitten for West Hartford, Conn., a combination of zoning and platting for unbuilt areas was first

suggested; and Mr. Whitten's zoning ordinance for Westerly, R. I. (under a specially procured state enabling act) was the first ordinance to be adopted providing for such a combination. When new subdivisions come up for approval in Westerly the general or master plan and the zoning can be modified so that zoning regulations and street and block layout are completely adapted to the proposed type of development. Such legislation is desirable both to secure reasonableness in development and to promote individuality and promising experiments in the layout of neighborhoods, such as that being tried at Radburn, N.J., by the City Housing Corporation.*

A considerable number of platting regulations specify relationships between platting requirements and the zoning ordinance. Notes of such requirements may be found in the Appendix in Mr. Menhinick's study. These requirements relate to changes to a higher use indicated by proposed plats, to special adaptation of the platting to business centers and industrial needs (as distinguished from cutting land into ordinary building lots), and to building lines.

Platting and zoning are essentially minimum requirements for community welfare. Further control over private development must be exercised through restrictions in deeds. In the platting control exercised outside municipal boundaries in unzoned areas, restrictions are necessary if the character of proposed developments is to be preserved. The regulation of Dayton, O., is particularly significant: when the planning commission deems it desirable from a city or regional point of view, "the subdivider should restrict by covenant in the deed part [or] all of his plat against industrial or business use, or against multiple-family houses either permanently or until the section be zoned, such restrictions to be filed and recorded with the plat." Similarly in Indianapolis outside the zoned city limits, subdividers are asked to put zoning requirements into the deed restrictions, and this has been done voluntarily because the advantages are patent. In Houston, where the city zoning ordinance is still in preparation, the planning commission endeavors to get restrictions and platting to conform to the proposed uses under zoning. In Milwaukee County, in cases where subdividers have been unwilling to dedicate the shores of streams adjoining the parkway system, owners of plats have been persuaded to put restrictions in deeds preventing the removal of trees and shrubs and the erection of buildings within a certain

* See paper by Louis Brownlow, "Some Problems in New Planning," before National Conference on City Planning, 1929.



Courtesy of Charles F. Fisher, Planning Engineer, Akron

PLATTING FOR RETAIL BUSINESS, AKRON, OHIO

limit, together with a provision that the county will be given first opportunity to purchase if the land is to be sold. Better types of restrictions have been secured in Omaha because of the advice given by the planning commission to subdividers.

Zoning, platting, and private restrictions can be made to work together to produce the utilization of land in the best interests of the developer because his interests are inextricably bound up in the long run with the best interests of the community. We are just at the very door of understanding the opportunities which conscious guidance of physical development opens before us in promoting forms adapted to modern life and productive of orderliness in community living.

Observed Beneficial Effects from Plat Control

There is ample evidence — as the notes given in the Appendix reveal — that community control of platting and land subdivision has proved beneficial both to the community and to the fair-minded subdivider. We have already remarked that in Oklahoma City many subdividers outside the jurisdiction of the regional planning commission submit plats because planning commission approval is accounted a valuable sales argument. Communities have derived benefit from the better adaptation to topography secured in plats on broken ground, from dedication by subdividers of wider streets, better aligned and appropriate to the type of development, from dedication of open spaces and preservation of natural features, and from the general improvement in the character and appearance of subdivisions related to city planning considerations.

Altoona, Pittsburgh, El Paso, San Francisco, San Diego, and the National Capital Region have all secured substantial benefits from the better adaptation to topography secured through plat control. In Council Bluffs, Ia., where gridirons platted on hilly sites have made development costs excessive, areas must now be replatted; and as another example, by contrast to streets adapted to topography, Little Rock, Ark., may be cited as having had two streets, laid out and surfaced, so steep that traffic can go neither up nor down.

The most considerable economic benefits to the community have resulted from street dedications secured in accordance with major thoroughfare plans. Cleveland, Detroit, Indianapolis, Los Angeles, Memphis, Portland, Ore., Evansville, Ind., Johnstown, Pa., Wichita, Kan., Schenectady and White Plains, N. Y., Milwaukee County, and the

Maryland-National Capital Region offer striking instances of many miles of major streets dedicated in conformity with comprehensive plans.

The preservation of stream valleys and other natural features, aided by plat control, was reported especially in Cincinnati, Dayton, Johnstown, Pa., Fort Wayne, Detroit, Houston, San Diego, and Washington, D. C. In one large subdivision adjoining Memphis, nearly three miles of parkway were dedicated and also a school site, and 160 acres of remarkably fine forest land were reserved as a park for the city to purchase at acreage prices. Duluth, Akron, and Atlanta reported beneficial effects from open spaces secured through dedications in approved plats.

The comments made in the cities visited during the field study regarding the general improvement of types of development through platting control are too numerous to recite. Chattanooga, Council Bluffs, Evansville, Kenosha, St. Paul, Toledo, Syracuse, San Diego, and Seattle particularly stressed the better development secured. Improvement in street appearance has been secured by requiring poles and wires in rear easements, — a frequent practice in high class subdivisions governed by private restrictions. The Municipal Reference Bureau of Cincinnati has very recently made studies regarding requirement in platting regulations of placing wires underground in new subdivisions, showing that this usually more expensive method of improving street appearance is rarely made compulsory in residential districts.* The orderly effect from houses better spaced and more uniformly related to the street line can be seen in many cities, partly attributable to platting and partly to zoning regulations.

The economic losses suffered by municipalities prior to platting control, both through layouts inappropriate to the topography and through lack of continuity in the development of the street system, have been enormous. Platting control was accounted by many cities the most profitable single result of city planning. These losses have been a burden to the public purse and also to future property owners. It is estimated that in one plat in Ponca City, Okla., future property owners were saved $50,000 on paving alone through the better type of plat approved by the planning commission. The savings in the Los Angeles Region effected by the work of the Regional Planning Commission may be imagined when we realize that 55 square miles of unincorporated areas (of which 80 per cent was finally recorded) have had the advantage of the Commission's study and approval.

* "Underground Wiring in New Subdivisions," University of Cincinnati, Sept. 10, 1928.

A subdivider in the region of Sacramento became very indignant at the suggestions of the planning commission for making his proposals for narrow lots and streets conform to required standards, but returned the next day with a complete new plan, apologizing handsomely to the board because he had discovered that he could make considerably more money in the sale of the property according to the revised layout.

Heavy losses are being suffered at the present time in such cities as Cheyenne, Wyo., Lincoln, Neb., Little Rock, Ark., and Roanoke, Va., where plat control has been lacking or ineffective. Cities cannot afford to grow without the benefits of platting control, as Mr. Bettman pointed out in his brief submitted in the Cincinnati Land Registration case of 1927 already cited: "The experience of American cities has demonstrated that after the lots of a subdivision have been sold and built upon, then curing the mistakes of the layout has become too costly, prohibitively costly. The City of Cincinnati to-day is expending annually hundreds of thousands of dollars in attempts to cure some of the inconveniences of street locations in neighboring subdivisions which do not fit into each other, dead-end streets, over-narrow streets, and the like; and these vast expenditures do not begin to cure the evil effects of bad layouts. Over-intensification of building, once it takes place, remains incurable and its evil effects upon health and order remain incurable. Slums, congested territory without adequate open spaces for light and air, streets that do not fit into each other but require inconvenient off-sets or huge expenditures to widen or to cut new streets through built-up territory; all these experiences demonstrate that, in city life, an ounce of prevention is worth a pound of cure."

CHAPTER XI

ZONING

Zoning Is Constitutional

IN the Euclid Village decision of 1926, the Supreme Court of the United States declared the constitutionality of zoning when based on comprehensive planning. The "wisdom, necessity and validity" of regulations which would have been rejected as arbitrary half a century ago, "as applied to existing conditions, are so apparent that they are now uniformly sustained." This victory for considerations of community health, safety, morals, and the general welfare over regard for private rights inimical to community well-being — as set forth in Chapter II — has now placed zoning among the recognized functions of municipal government. It has laid upon communities still without the protection afforded by zoning the duty of planning comprehensively for the apportionment of municipal areas into residential, business, and industrial districts, appropriately restricted as to coverage and volume of buildings with which the land may be developed.

The Spread of Zoning

When the City of New York passed the first American comprehensive zoning ordinance in 1916, there were already several partial or piecemeal ordinances in effect in Massachusetts, California, and Wisconsin. The growth of zoning recorded by years and by states subsequent to 1916 is vividly set forth in tables accompanying the latest edition of *Zoning Progress in the United States* issued in April, 1929, by the Division of Building and Housing of the Department of Commerce.

Five years after the passage of the New York ordinance, 76 communities were zoned. By the end of 1926, the total was 564; the latest figures would now be something over the 754 reported in the Department of Commerce tables. Taking the tabulated figures, the State of New York is found to lead with 131 zoned municipalities; New Jersey * has

* Reports have been issued by the New Jersey State League of Municipalities, the Massachusetts Department of Public Welfare, the Pennsylvania Bureau of Municipalities, and the Ohio State Conference on City Planning summarizing zoning progress in the respective states.

84; California, 73; Illinois, 71; Massachusetts,* 62; Pennsylvania,* 43; Ohio,* 41; Michigan, 31; Wisconsin, 30; and Kansas, 23. The only states where no zoning is reported by the Department of Commerce are Montana, New Mexico, Vermont, West Virginia, and Wyoming; and of these Montana has just passed a city planning and zoning enabling act, and Santa Fe, in New Mexico, and Cheyenne, in Wyoming, were found during the field study to have some zoning regulations not of a comprehensive character. The most recent states to zone — added to the list in 1928 — were South Dakota and Idaho. States having up to January 1, 1929, only one zoned municipality were Delaware, Louisiana, Mississippi, Nevada, South Carolina, and Texas, although in the last-named state there are a number of ordinances in preparation.

Of the 85 cities in the United States having a population of 100,000 or more, only 14 have no form of zoning ordinance, and in 7 of these, ordinances are being prepared. Of the 6 largest cities in the country, New York had the first comprehensive zoning ordinance; St. Louis, the second; Chicago was zoned in 1923; Cleveland passed a comprehensive ordinance late in 1928 only to have it rendered inoperative in less than two months, while the proposed ordinance for Detroit is still hanging and there is no ordinance drafted in Philadelphia where, however, certain limited areas (along parkways and so on) are regulated under the police power.

Of the cities and towns visited during the field study, over 75, or approximately three-fifths, had comprehensive zoning ordinances in operation or have passed an ordinance since the visit was made, — which happens to be about the same proportion as that of zoned urban population to the total population of the United States. One county, Glynn County, Ga., was found to have a comprehensive county zoning ordinance, in addition to use-zoning found in Milwaukee and Los Angeles counties.

It is significant that in the Department of Commerce tables, 437 communities having less than 10,000 population are reported to have zoning ordinances, and of these communities, nearly a hundred have less than 1000 population. The foresight of such communities in regulating the development of land *before* congested conditions arise is bound to be relatively more productive than the remedial measures forced upon cities with largely built-up and already overcrowded areas.

* See note on page 162.

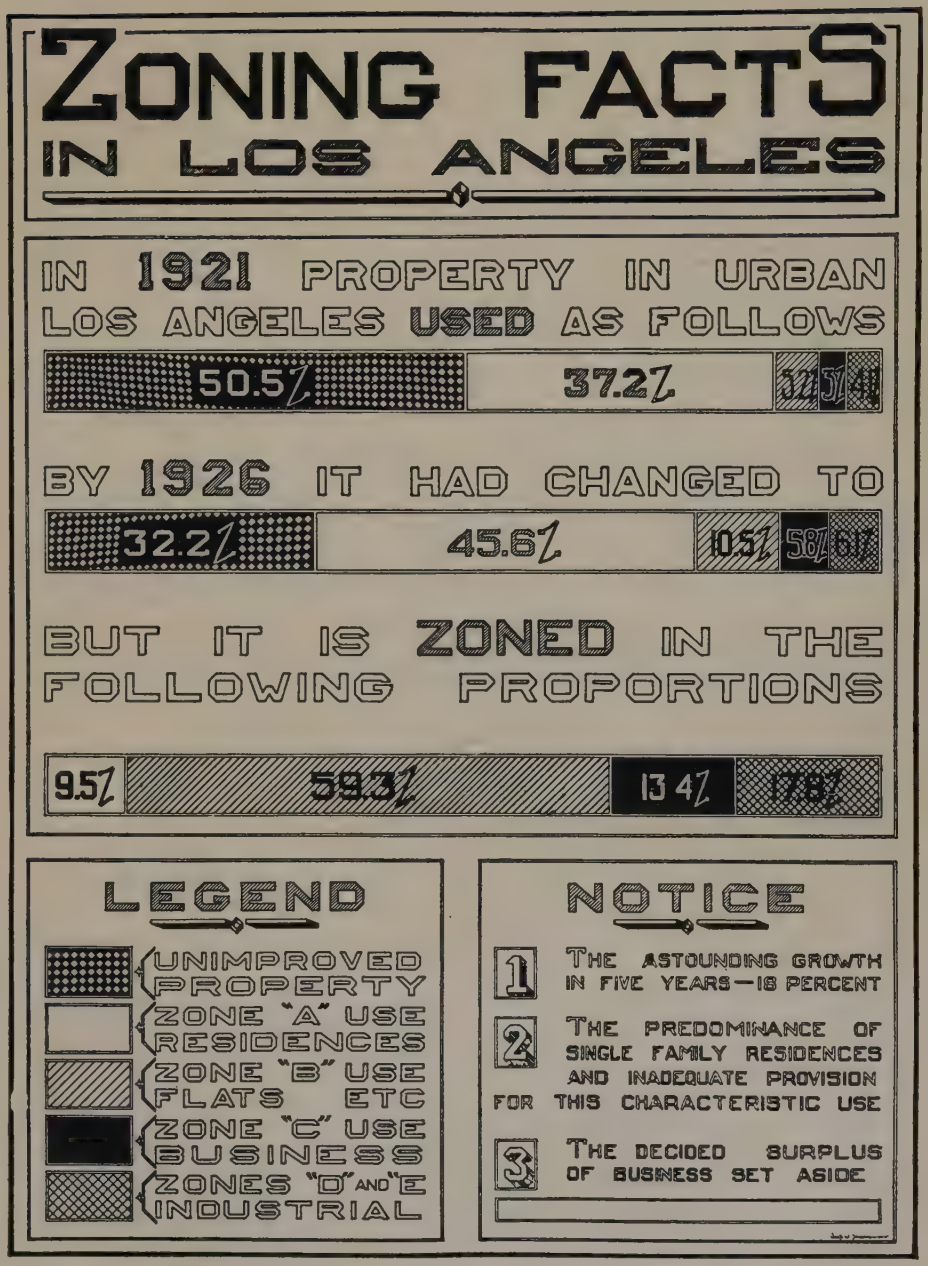
Fundamental Bases of Zoning

The social objectives of zoning have been made clear from the very first, in the arguments placed before cities and states to urge the passage of zoning legislation, and in the arguments laid before the courts in support of cases calling its validity in question. The brief *Amici Curiae* prepared by Mr. Alfred Bettman for the Euclid Village case is our most valuable compilation of social, economic, and scientific facts proving that zoning not only makes for the promotion of health, safety, and morals, but also for convenience and general prosperity. The four terms used in the Department of Commerce Standard State Zoning Enabling Act are the four main pillars of the police power, — health, safety, morals, or the general welfare, — all fundamental social purposes in the eyes of the law, to which such subsidiary purposes as prosperity, convenience, or amenity may incidentally contribute.

In the studies of zoning standards now being submitted by Mr. Bettman for discussion among members of the American City Planning Institute, he points out that "the purpose of zoning is always positive and constructive and not merely negative and preventive." The stabilizing of uses and of types of development, and the resultant stabilization of values, by regulations stated in the form of prohibitions, are means to promote community welfare, not ends in themselves.

The regulation of the size and spacing of buildings promotes healthful provision of light and air, safety from spread of fires, access for fire-fighting apparatus, and so on. By prohibiting multi-family apartment houses, shops, and public garages in home neighborhoods and by requiring ample yards, conditions favorable to home life and the rearing of children are fostered, as well as the protection of savings invested in home properties.

The effect which zoning regulations have on the orderly development of the community at large appears when the uses of land are considered in relation to means of circulation. Density of development and type of use determine the amount and kind of public open spaces necessary, the parks and playgrounds, the number of school buildings and other public services required. Type and distribution of land uses determine the amount and kind of street area needed to serve local purposes and to connect districts with one another and with the city center. Street system planning and zoning are inextricably bound up in their provisions for community growth.



Courtesy of Gordon Whitnall, Director-Manager, Los Angeles City Planning Commission

Zoning Must Be Comprehensive

The very purposes of zoning imply the necessity for comprehensive planning, since if the rights of one individual are to be limited, this limitation must be imposed for the *general* community benefit; and in the last three years the Supreme Court of the United States has made very clear that only zoning comprehensively conceived will be upheld.

"What is Comprehensive Zoning?" is the title of the paper before the National Conference on City Planning in 1928 by Mr. Harland Bartholomew, which constitutes the most scientific technical contribution to the subject yet available and which should be read and considered by officials in every community contemplating a new zoning ordinance or the revision of inadequate existing regulations. This paper emphasizes again that zoning is but one element of a comprehensive plan, for which are required not only studies of population and land uses directly contributing to zoning regulations, but also studies of major streets, transit, transportation, parks, and public buildings. "Without such a comprehensive plan, the framers of the zoning plan must make numerous assumptions regarding the future of the city in respect to all of these matters without the benefit of detailed information and study. Zoning can neither be completely comprehensive nor permanently effective unless undertaken as part of a comprehensive plan. If not so undertaken, the zoning ordinance becomes largely an instrument of expediency, subject to constant and often whimsical change. This leads to instability, uncertainty and ineffectiveness." These conclusions are thoroughly substantiated by the observations made during the Harvard Field Study. Many of the zoning difficulties reported arose in cities where comprehensive basic studies had not been made and where local conditions have been fixed by a municipal blanket restriction * rather than provision made for balanced future growth.

To produce a really permanent guide, studies for zoning must transcend municipal boundaries and consider regional uses of land. Although one suburban community may perhaps comprise only residence, business, and light industrial uses, somewhere in the region there must be adequate provision for *all* the types of uses which the community needs for habitation, recreation, and work. The studies of the Regional Plan of New York have particularly contributed to our understanding of regional con-

* See paper by J. T. Woodruff in *City Planning*, Jan., 1928, "Tests of City Planning Efficiency."

siderations in the location of industry as affecting the provisions in local zoning ordinances. The work of Milwaukee County and the coördinated work of the National Capital Park and Planning Commission with the similar Maryland commission suggest the sound relationships to be achieved in what is fundamentally regional zoning.

While the Department of Commerce figures place the number of zoning ordinances comprehensive in scope at a total of 475, this number is probably too high, unless "comprehensive" be restricted to indicate ordinances which regulate use, height, and area. Some ordinances which include all these features and are therefore listed by the Department of Commerce as "comprehensive" are not really comprehensive, because they do not cover the whole area of the municipality, as in Fall River, Mass., and Jacksonville, Fla.; and even more ordinances fail to measure up to the standard of comprehensive planning just indicated. It was encouraging to find during the field study that a number of cities are now in process of having inadequate zoning ordinances revised and developed to become actually comprehensive in the city planning sense.

Of the slightly over 75 cities and towns included in the field study which are classed as having "comprehensive" ordinances, about two-fifths had zoning studies made as part of and coincidently with comprehensive plans; a few more such as Chicago and Johnstown, Pa., had zoning articulated with comprehensive early plans. Another fifth had ordinances prepared on the basis of comprehensive surveys of a city planning character, even though no actual comprehensive city plan resulted, several of these being in cities with highly developed dovetailed special plans. It was found that the majority of cities had employed competent legal or technical advisers in the preparation of zoning ordinances, and that in a considerable number of these cities, where lack of political upheavals gave zoning a fair chance, administration of the ordinance had been facilitated and the comprehensive purposes of zoning better preserved than in cities where less comprehensive studies and less skilled technical advice had been employed. The thorough-going character of well prepared zoning ordinances and of accompanying zoning maps, on which district boundaries have been carefully studied, has a very vital relation to successful zoning administration.

In several cities, such as Louisville at the present time, it has seemed expedient to prevent the extension of inappropriate uses by enacting interim zoning ordinances pending the preparation of comprehensive studies. In the following cities visited, interim ordinances preceded the

comprehensive zoning ordinances now in force: Colorado Springs, Salt Lake City, Ponca City, Okla., Dayton, O., Norfolk, Va., Hartford, Conn., Westerly, R. I., and Springfield and New Bedford, Mass. If an interim ordinance is prepared with competent advice and is plainly preliminary to a thorough-going ordinance, the circumstances justifying it will incline the courts to take a broad view of its social purposes, as indeed has already been demonstrated.

Piecemeal ordinances such as those which have burdened New Orleans, where a comprehensive ordinance has just been adopted, may become almost worse than no zoning. On the other hand use-zoning ordinances such as those in force in Rochester or San Diego (both cities where comprehensive zoning is expected soon to be adopted), if applied to the whole area of the city, may be stepping stones to more comprehensive enactments when public opinion or legislative powers make these possible. In Wichita, Kan., there are no height limitations because of doubt as to whether the state law granted this power. In Jersey City, zoning regulates only use because the area and height limitations of the state housing and building codes are allowed to govern.

No matter what reasons may be assigned for lack of comprehensiveness, the *goal of comprehensive zoning* should ever be kept in sight by communities now partially zoned and by those who have the task yet to undertake.

Relation of Zoning to Building and Housing Codes

The situation of Jersey City suggests the intimate relationship which exists between a building code, a housing code, and a zoning ordinance. In the Standard Zoning Act, any possible conflict in requirements for size of yards, courts, and other open spaces, and for building heights, is provided for by a statement that the more stringent provisions, setting higher standards of light and air, shall in each case prevail. The existence of building and housing codes is not a sufficient reason in itself for the omission of regulations necessary to make a zoning ordinance comprehensive. Each code should be self-contained since each is amended in a different way: in building codes regulations are uniform for the whole city, while in the zoning ordinance there are different regulations for different districts.

Where a building code exists at the time a zoning ordinance is being prepared, the provisions of the building code may be revised and harmonized, as in St. Paul, Memphis, Seattle, Greensboro, N. C., and Portland,

Me. In Grand Rapids, Mich., and Ponca City, Okla., the zoning ordinances and building codes were prepared simultaneously; in Providence, R. I., Knoxville, Tenn., and Kenosha, Wis., newly revised building codes are prepared or being prepared in harmony with zoning regulations. The requirements of the building code were made to discourage undue zoning for business in Colorado Springs by requiring fireproof brick construction for all new buildings in business districts. A number of cities with zoning ordinances reported the lack of building codes or the need of thorough revision.

In several cities such as Akron and Atlanta, slight reported conflicts — respectively in side-yard requirements and expiration of building permits — are covered by the provision that the more restrictive regulation shall prevail. It would appear that as yet there has been no very general effort to harmonize differing provisions as to the same subject in building codes and zoning ordinances, although this would appear to be eminently desirable from the point of view of the citizen and the builder as well as of the building inspector. The publication of harmonized building code and zoning regulations in one manual, as that for Portland, Me., is a practice to be commended.

Unless there is a state housing law, housing provisions are found frequently to form part of the building or health codes. In either case, or if there is a separate municipal housing code, there is the same desirability of harmony in provisions for light and air and yard space in all codes touching these subjects. Meanwhile the more stringent requirement prevails. Particularly in the matter of requirements for residential districts, the social rather than the economic aspects of zoning have been made apparent; and the necessity for sunlight and space for decent living set forth in zoning studies may react favorably on minimum provisions hitherto set by housing codes.

Administration of Zoning

The passage of a zoning ordinance and its amendment is a legislative function. The operation of the ordinance, which embodies community desires as expressed through the legislative body, is an administrative function. The officers, boards, or bureaus charged with this administrative function are not empowered to legislate.

The municipal officer commonly * charged with the administration

* In Chattanooga, Tenn., the police department enforces both the zoning ordinance and building code. Cf. reference to Chattanooga on page 171. In Louisville the interim zoning ordinance is administered by the Board of Safety.

of a zoning ordinance is the building inspector (or building supervisor, superintendent of buildings, or whatever he may be entitled). To him must be made application for building permits or certificates of occupancy, which he may issue when the proposed use and development are strictly in accordance with the provisions of the zoning ordinance. He exercises discretion in administering the ordinance only through the judgment and common sense necessary to determine whether the proposed development does or does not accord with zoning regulations. It is his business to see that the law is enforced. Unfortunately in several of the cities visited it was reported that the building inspector, through ignorance, carelessness, or willful disregard of the law had issued permits for structures violating the zoning ordinance. Planning commissions must ever be alert to catch and prevent such evasions, which politics render all too common likewise in our enforcement of building codes.

When a proposed use is judged by the building inspector to be contrary to the regulations imposed by the zoning ordinance, and the permit is therefore refused, the applicant, if dissatisfied, may take further measures according to the provision made in the ordinance for adjustment or court review. When the zoning ordinance provides for a board of adjustment,* the aggrieved person may present his case, showing why the law should be varied to protect his rights. If the building inspector is upheld by the board of adjustment, and court review is provided for in the zoning ordinance, the applicant may then have the whole case reviewed by the courts to determine whether or not he has a just cause for variance.

If the zoning ordinance has no safety valve — to use Mr. Bassett's † term — in the form of a board of adjustment, and no provision for court review, the aggrieved person may immediately begin action against the city on the ground that he has been deprived of his rights and that the zoning ordinance is unconstitutional. Where a safety valve has been provided, the applicant must exhaust the remedies given him by law — first the board of appeals, then court review — before starting action on the ground of unconstitutionality.

From these briefly stated facts, it would appear that the board of adjustment is essentially an administrative board, with discretionary or quasi-judicial functions, working with the building inspector to admin-

* The Standard Zoning Enabling Act uses the term "board of adjustment." "Board of appeals" is perhaps more common and "board of review" is also used.

† See especially Mr. Bassett's article "Exceptions by Council *versus* Variances by Board of Appeals" in *City Planning*, July, 1928, discussing the practical nullification of boards of appeal powers in New Jersey.

ister the zoning regulations in harmony with their fundamental purpose and intent. Whereas the building inspector may only grant or deny, according to his judgment of the literal intent of the law, the board of adjustment is empowered to determine whether a variance in a specific case, arising from practical difficulty or unnecessary hardship, will still preserve the spirit of the ordinance, — in other words whether substantial justice to the individual may be harmonized with substantial justice to the community.

Two initial questions come to the board of adjustment: has the building inspector correctly interpreted the law? and if so, does the law work a particular and unnecessary hardship in that one and particular case? If the hardship is a general hardship arising from imperfect zoning regulations, the matter of re-zoning is a legislative matter and not strictly within the jurisdiction of the board of adjustment, although in the State of New York boards of adjustment have been upheld by the courts in cases where more than a particular hardship could be shown. In theory, however, the legislative, administrative, and judicial functions may be clearly distinguished as regards zoning, even though in actual practice they appear to merge in the work of a board of adjustment.

Whether or not the province of the board of adjustment is more or less prescribed in the zoning ordinance by enumeration of items of original jurisdiction,* or whether a body of procedure compiled from past actions serves as a guiding rule, boards of adjustment should determine in each case whether the difficulty is a peculiar and individual one and whether relief may reasonably be given without impairment of the zoning structure. When the granting of relief would seem to involve a change in the zoning structure and thus substantially modify community desires as expressed by the zoning ordinance, reference to the legislative agent of the community would seem to be logical, and is indeed essential, if boards of appeal are to be permanently respected.

It is not the purpose of this book to continue theoretical discussion of the true nature and functions of boards of adjustment. The statements of Messrs. Bassett, Bettman, and others, particularly in the series of articles in *City Planning* (1927), cover the field from diverse points of view. The foregoing brief outline of the normal province of a board of adjustment is given in order that we may see more clearly how zoning is

* In the great majority of ordinances there are from 3 to 20 items of original jurisdiction, providing for situations in which the board of appeals may grant variations. It is in items of original jurisdiction that the principle of property owners' consents may be legally employed.

being administered in the United States as observed during the field study; and whether or not the functioning of adjustment boards may be considered successful.

The enabling legislation for zoning in the states of California and Washington does not provide for boards of adjustment. Several of the Coast cities reported that adjustment boards are badly needed. In Minnesota, although the state enabling act gives no authority, Duluth has a board of appeals which recommends variances for action by the city council, which had in every case (at the time of the visit) complied with the board's desires. Variances which conflict with the major street plan are always refused. In Minneapolis, also without legislative authority, the planning commission virtually acts as an adjustment board, recommending to the city council action which is generally approved. In St. Paul, similarly without legal authority, a Board of Zoning has operated effectively in studying and recommending to the city council action on petitions for zoning changes. In Chattanooga, the city commission acts as a board of adjustment since none is provided for by ordinance. The lack of a board of adjustment in Washington, D. C., is felt to be a serious defect in the ordinance. Laramie, Wyo., Wichita, Kan., and Syracuse, N. Y., also reported no board of adjustment.

An overwhelming proportion of the zoned cities visited have adjustment boards in operation. The question at once arises as to whether observation justifies the apprehensions, frequently voiced, that politics are rendering boards of adjustment undesirable vehicles of graft and corruption. The number of cities in which responsible persons, interested in preserving the principles of city planning and zoning, stated that politics have *not* been mixed up in zoning administration far exceeds the number of cities reporting political interference, and in some of these latter the interference took the form of unwise amendments by city councils rather than unfair operation by building inspectors and boards of adjustment. Undoubtedly there are cities where graft and political pull are warping the administration of zoning: this is inevitable in our democratic form of government. Graft and political pull are also preventing the functioning of city planning commissions in certain cities, but the desirability of having such a commission is not thereby disproved. The chief difficulties in the operation of boards of appeal lie in the original lack of definition of their appropriate province, in their ignorance of the distinction between the legislative and administrative function, and in the personal equation which is no more present in a board of zoning ad-

justment than any other administrative board with quasi-judicial functions, such as tax appeal boards, in our system of municipal government.

Many boards of adjustment grant variances on certain conditions imposed to preserve the spirit of the zoning ordinance. In Denver, Cincinnati, Providence, and New York the operation of conditional variances may be studied to great advantage.* In Providence, where we have seen almost a model operation of zoning, it is estimated that 80 per cent of the variances have been conditional. Atlanta, Akron, Canton, Dayton, Chicago, Winnetka, Kenosha, and Memphis, will also repay study for this phase of zoning administration. In Milwaukee, an appeal to the board of adjustment is either granted or denied: conditions are never imposed. Conditional variances would, however, seem to be a logical concomitant of a board's action — in the words of the Standard Zoning Enabling Act — "so that the spirit of the ordinance shall be observed and substantial justice done." The alleged bartering situation involved should be considered rather a compromise and adjustment in the interests of justice than a yielding to circumstances. The very name "board of adjustment" suggests the function of the conditional variance.

The composition of boards of adjustment varies considerably. In a number of cities, among them Boulder, Colo., Fall River, Mass., Indianapolis, Kansas City, Mo., and Knoxville, Tenn. (as well as Minneapolis already mentioned), the city planning commission acts as the board of zoning adjustment. In Topeka, Kan., and Jersey City, N. J., the board of city commissioners acts on appeals, and in Portland, Me., the city council combines this function. The most common, and usually the most desirable, practice is to have a separately appointed body,† containing a member of the city planning commission as suggested in Chapter III, although this board may be combined with the board of building appeals as in New Bedford. The failure of a board of building appeals in the city of Boston to protect the zoning in matters of height gave rise to the present additional powers of the board of adjustment originally created to relieve the State Legislature of Massachusetts from having to pass on proposed boundary changes in zoning districts, as would otherwise be necessary under the peculiar legislative powers of the State

* See file of published reports for Denver Board of Adjustment, articles in *American City* and *City Planning* for Providence, and writings of E. M. Bassett for New York. There are mimeographed reports of the Cincinnati Board of Zoning Appeals, and its rules of procedure are printed in the Official Plan.

† The building inspector should not be a member of the board of adjustment.

over the government of the City of Boston. In Boston the chairman of the city planning commission presides over the board of adjustment.

Although members of the board of adjustment in Boston receive no compensation, members of the board of appeals are paid $10 for each meeting. Similarly in Newton, Mass., the three members of the board of appeals (acting on both building and zoning) receive $10 each per meeting. Only a few cities reported payment for service on adjustment boards. In Cincinnati, $25 per meeting is paid, in Columbus $10 per meeting for not more than two meetings per month. In Canton, O., a salary of $25 per month is paid. In Birmingham, Ala., the chairman is paid $300 per month and other members $15 per meeting. The five members of the board in Trenton, N. J., will in future receive $200 each annually. The salary of members of the boards in Akron, O., and Wilmington, Del., is $500 each per year; of members of the Buffalo board, $1000 per year. The chairman of the Chicago board received $7000 per year, and each of the other four members $5000 per year. Of the four appointed members of the Board of Standards and Appeals of the City of New York, the chairman receives $12,500 and each of the other three $7500. A fifth (ex-officio) member receives no additional compensation.

Five would appear to be a very common number of members composing a board of zoning adjustment. No attempt was made during the field study to record and analyze the membership, in number or interests represented, since it was understood that the Advisory Committee on City Planning and Zoning, and the Division of Building and Housing of the Department of Commerce, are engaged in a thorough study of the subject of the composition and functions of boards of adjustment, from which we may look for a far more comprehensive review of the subject than the cursory notes here given.

Protection of Comprehensive Zoning

The integrity of a zoning ordinance and map must be preserved from variances by boards of adjustment which are not based on practical difficulty and unnecessary individual hardship. Their integrity must equally be preserved from amendments by the city council which are not intended as a modification of the ordinance to adapt it comprehensively to city growth and development but which instead are sporadic changes to suit local or even individual needs, unrelated to those of the community at large.

The normal method of securing conformity to the purposes of the city

plan is for the city council to refer all proposed amendments to the city planning commission for approval or disapproval before council action is taken; but if the city council is not coöperative, even this method may fail to protect the zoning plan. In Toledo, nearly one-fourth of the planning commission recommendations on zoning amendments were disregarded by the city council in the five-year period following the passage of zoning (1923), and this state of affairs has militated against the efficiency of the comprehensive city plan of Toledo. In St. Paul, on the other hand, in the first five years of the zoning ordinance (1922–27), only seven petitions disapproved by the Board of Zoning were granted by the City Council.*

A check on changes desired only by individuals is suggested in the Standard Zoning Enabling Act through the provision that a three-fourths vote of the council is required to pass changes opposed by 20 per cent or more of the affected property owners. In Cincinnati, at least a two-thirds vote is necessary to overrule disapproval by the city planning commission: it is significant that the opinion of the planning commission on zoning amendments has never been overruled or even received an adverse vote of a majority of the council, with one exception in 1929.

The City of Sacramento, even prior to the recent passage of a comprehensive zoning ordinance, evolved a method of requiring all petitions for zone classification changes to bear the signatures of a fixed percentage of the property frontage within a radius of 500 feet of the property in question, — a proceeding which materially lessened the number of petitions. A "Zoning Reclassification Guide" was prepared to facilitate analysis, by members of the city planning commission, of the factors involved in a proposed change. This guide (reproduced in the Appendix) was successfully used in training members to act logically and to relate a change to comprehensive considerations.

The nature of zoning amendments in a considerable number of cities visited leads to the conclusion that many of these amendments have been occasioned by an imperfect adjustment of the zoning map on the ground when the zoning ordinance was drawn. The more carefully the boundaries on a zoning map are adjusted to actual and proposed development, the less likely are amendments to be secured which may or may not be comprehensively studied.

The city planning commission may become aware of desirable amendments to certain sets of regulations contained in the zoning ordinance,

* See report (mimeographed): "The Building Zone Ordinance — Five Years of Performance."

and proceed to study these on a comprehensive basis, as in Cincinnati where revisions are in progress to provide additional space for apartments and factories. In Syracuse, a "future use" map is being prepared to guide the planning commission in determining the desirability of amendments. Over-zoning for business, which is discussed later in this chapter as part of the whole problem of studied relations of space requirements, is also occasioning study in a number of cities looking toward comprehensive revisions. In no way can a zoning ordinance be better protected than by constant analysis and study on the part of planning commissions of whatever friction may develop when the zoning wheels get actually under way.

During the field study questions were asked in the cities visited both as to the amount and kind of variances by adjustment boards and of amendments by city councils. Local opinion was also sought as to whether the zoning ordinance had been strengthened or weakened thereby.

In Birmingham, Ala., over 1100 cases have been brought before the board of adjustment since the zoning ordinance was enacted in 1926, but the administration of the board has strengthened the zoning structure. The suburban city of Newton, Mass., has a most remarkable record of excellent zoning administration and strengthening of the zoning structure: since the adopting of a zoning ordinance in 1922 and the establishment of single-family zones in 1925, 90 per cent of the requests for changes have been from a lower to a higher classification, and nearly 80 per cent of the city area is now zoned for single-family residence, — in this long period with only one appeal from a decision of the Board of Aldermen involving the change of a zone. In Grand Rapids there have been an exceedingly small number of changes in the original ordinance and excellent zoning control.

From numerous comments and some statistics collected during the field study as to zoning variances, it would appear that Grand Rapids is about typical, with 65 per cent granted and 35 per cent denied, but above the average in complete satisfaction of the city planning commission with the variances allowed. Madison, Wis., reported the strictest administration encountered, where no variances in use districts have been granted and 75 per cent of the variances in height and area regulations have been such as to promote a more restricted use. In Pittsburgh where the board of appeals is not permitted to make height variations, such height changes as have been made by the city council have not

weakened zoning, which indeed has been strengthened in Pittsburgh by the addition of the single-family district classification. The administration of zoning by the board of appeals in Baltimore * recalls the story of the Dutch boy with his thumb in the hole in the dyke, so arduous and persistent has been the lone-handed official effort to protect zoning in the face of adverse court decisions.

Taken by and large, more cities have had the zoning structure strengthened than weakened, but so many cities with active, intelligent city planning commissions have had zoning weakened that it is highly important for public and official opinion to be educated to the measures necessary to protect zoning ordinances, if these in turn are to offer reasonable, just protection to the community at large. "Weakened but saved," as one city reported, cannot remain true in the long run.

Local Support for Zoning

In several of the preceding chapters (III, VI, and IX) we have seen that many local groups are active in support of planning measures. In response to the question asked in the cities visited as to whether popular support for zoning is good, the answer in all but five cities, out of over sixty making a reply, was "good" or "very good" or "getting better all the time." In Bismarck, N. D., comment was made that while downtown merchants were for it, local merchants originally opposed it but now have become favorable because they find that trade is stimulated for the appropriately located stores. A recent survey by the New Jersey League of Municipalities (Report 223) revealed that zoning is well supported in New Jersey. In Providence, R. I., it was reported that "the coöperation of the people has made zoning successful." In more than one city people are complaining that zoning regulations are not stringent enough.

Taken as a whole, real estate boards are found to be favorable to zoning and coöperative in carrying out its provisions: in only six of the cities visited was organized active opposition on the part of real estate interests reported as preventing or obstructing zoning. Utility companies as a rule may also be counted favorable to zoning. The general attitude of telephone companies has been expressed in favor of the stability brought about by zoning, which enables plans for extensions to be

* The second annual report of the Baltimore Board of Zoning Appeals includes a remarkable series of arguments and statements tying zoning to the whole life of the city.

made at greatly reduced expense, but they have been offenders in raising or varying height limitations for skyscraper buildings. In no cities visited was any unfavorable attitude to zoning on the part of utility companies mentioned as existing at the present time.

Such dissatisfaction with zoning ordinances and their operation as may be found in various cities can usually be ascribed to purely selfish interests advanced by an individual or group, to political or short-sighted administration of the ordinance, or to defects in the ordinance itself.

If No Zoning, Why Not?

Detroit is still without a zoning ordinance because of the opposition of downtown property owners to height restrictions, but now that many ardent opponents of zoning are provided with high buildings, they are said to be willing to have regulations imposed. The protection of zoning has similarly been denied to the citizens of Philadelphia because of a small group of downtown property owners and politicians. The curious condition in Cleveland already noted appears to have been brought about by the opposition of real estate interests and by political conflicts. The obstructive policy of these three groups of property owners is in striking contrast to the nation-wide endorsement of zoning by the National Association of Real Estate Boards.

The newness of legislation in Texas and the honest attempt to procure zoning based on comprehensive studies which of course take time, account for the fact that zoning has not yet passed in Houston, Dallas, and Fort Worth. Communities in Missouri, New Jersey, and Georgia naturally waited for the comprehensive enabling legislation made necessary by unfavorable court decisions. In Nashville, Tenn., and Charleston, S. C., politics and conservatism may be ascribed as causes for lack of zoning. In Harrisburg a most unfortunate situation seems to exist, in which lack of public education in planning matters plays a considerable part.

This variety of causes in the comparatively few cities visited where zoning is not under way or in force, indicates why zoning has not been adopted in all the 250 cities of the country having a population of over 30,000 and in ten times that number of communities of over 2500 population. Ignorance on the part of officials, politics, lack of enabling legislation, lack of public education, are preventing zoning as a part of comprehensive planning, just as these unsocial conditions are marking communities as backward in other respects in their provision for future development.

Appropriate Building Heights

Restriction of the height of buildings has been the sticking point both in securing the passage of zoning ordinances prepared comprehensively, and in preserving the planning purposes embodied in zoning ordinances already in operation. Pressure for the increase of permitted heights has been almost universally felt.

Wholly aside from questions of light and air, and of building cubage as related to street capacity, building height has an appropriate relation to the character of the community, difficult to define but clearly appreciable. Aspiration or advertising may be expressed by the lone skyscraper, but in one type of community this may be appropriate and in another type, — a quiet residential suburb, — the skyscraper may wreck, as it pierces, the neighborhood atmosphere. Of course the unhappy visual relation of too-high buildings to dignified low buildings, as in our National Capital, contributes to the destruction of individuality, but in addition to this esthetic aspect capable of more definite proof, there is an intangible flavor which is lost when unnecessarily high buildings intrude themselves in localities which already have a valuable dominant character. This point is really part of the discussion in Chapter XVI, but it is so frequently lost sight of in discussions of building heights that perhaps its introduction here has not been amiss, even though it is only incidentally a consideration in zoning.

The fundamental police-power bases of regulating building heights are health and safety, — health as promoted by adequate light and air, and safety as promoted by a *reasonable relation* between building cubage and street capacity. The studies of the Regional Plan of New York in the great skyscraper city of America have revealed the causes of congestion as relative rather than absolute. The load upon the land in certain areas of Manhattan in New York, the Loop in Chicago, the Triangle in Pittsburgh, is greater than the street capacity can bear.

The step-back system invented in the New York zoning ordinance of 1916 recognized this volumetric relation, although not in any desirable ratio to actual street capacity. It is more recently, however, that volumetric regulation of building heights has been extensively considered both as a means of relieving the pressure for high buildings in congested areas without further overloading streets, as in the recently amended zoning ordinance in Boston, and as a constructive means for preventing congestion in cities where the land is not yet overloaded, as in Sacramento.

Courtesy of Parker, Thomas & Rice, Arch'ts.
Henry Bailey Alden, Assoc. Arch't.

BOSTON, United Shoe Machinery Building

Courtesy of St. Louis City Plan Commission
Mauran–Russell & Crowell, Arch'ts. I. R. Timlin, Assoc. Arch't

SAINT LOUIS, Southwestern Bell Telephone Building

BUILDING FORMS UNDER VOLUMETRIC ZONING REGULATIONS

Examples of volumetric limitations now in operation in other cities may be found in St. Louis, Cincinnati, Evansville, Knoxville, Memphis, Milwaukee, Minneapolis, and Schenectady.

In spite of the pressure which has been exerted in many cities to raise the height limit, without compensating volumetric regulations, this seems to have been largely resisted. Unfortunate examples of yielding to pressure may be found in Atlanta, where the 150-foot limit has been increased to 325 feet with no setback requirements, and in Washington where the original 110-foot limit was raised to 130 feet in 1927, and where also recently side setbacks have been eliminated. Although the actual height limit in Washington is moderate for a city of its size, the architectural character of the national capital, as just suggested, makes the relaxing of height restrictions peculiarly unhappy. In Lincoln, Neb., the zoning ordinance was amended to permit a desired building 200 feet high, an increase of $33\frac{1}{3}$ per cent in the height limit. Height limits have also been raised in St. Paul and Seattle.

It is extremely interesting to find that in Milwaukee, after the change to volumetric regulations permitting buildings 250 feet high, if their cubage remained the same as if they were 125 feet high, only one building has so far taken advantage of this greater flexibility in the restrictions. The change to volumetric regulations in Milwaukee was a direct outgrowth of the feeling that the economic limit in congestion of streets and building has been reached so that higher buildings should be discouraged.

The economic height of buildings in large cities is a subject which has been receiving extensive discussion. The studies of Mr. J. Rowland Bibbins and others were presented at the National Conference on City Planning in 1927 (see *City Planning*, July, 1927). Mr. Bibbins's proposed definition is: "*The true economic height of a structure* is that height which will secure the maximum ultimate return on total investment (including land) within the reasonable useful life of the structure, under appropriate conditions of architectural design, efficiency of layout, light and air, 'neighborly conduct,' street approaches, and utility-services." This statement deserves the widest circulation; and in ten years' time it would be extraordinarily interesting to check up the automatic result of volumetric regulations in some of our well-zoned cities to determine how closely this combined economic and social ideal has been approximated.

Although no attempt has been made in this book to make a detailed study of building heights, in view of studies now going forward in connection with the work of the Division of Building and Housing of the

Department of Commerce, some statistics as to building height regulations in the zoned cities visited during the field study might have been given in the Appendix, were it not that it would not present a fair picture of height regulations throughout the country, because of the very few small communities visited. It may easily be seen that permitted height and volume of buildings are by no means always adjusted to the size and character of the community. It scarcely seems necessary in Atlanta, in spite of a limited central district, to have a height limit almost twice that of Omaha in the same population group, or two and a half times that of the larger city of Providence. Any unannotated table of height limits would also give a false impression, when we discover that Tulsa, Okla., has a theoretical height limit of 60 feet, from which variances have been freely granted, there being two buildings over 250 feet and a number just under 200. Undoubtedly comprehensive planning for Tulsa will prevent such a travesty in the future. In some cities with very reasonable height limits, "pirate" skyscrapers have unfortunately rushed in just before the zoning ordinance went into effect: indeed in Atlanta it was a skyscraper just prior to the adoption of the new ordinance which caused the extraordinary height limit already mentioned. It is better, however, that only a few "pirates" should steal neighboring light and air from buildings held at a lower limit than that the future urban population should suffer from widespread congestion.

The beauty and effectiveness of soaring towers on some of the great commercial buildings of New York, Chicago, Pittsburgh, Cleveland, Detroit, or San Francisco are sources of wonderment to foreign visitors, and create a picture appropriate to the metropolitan character of the cities; and towers — always with suitable volumetric limitations — on a lesser scale may be fitting for many smaller cities. Good design becomes of tremendous importance in dealing with such conspicuous objects, and this aspect was meticulously studied in the original New York zoning regulations which, by the kind of volumetric limitations imposed, actually created a new architectural form. Of course no zoning can prevent the occasional freak, such as a tower recently erected in Minneapolis.

It is most appropriate of all perhaps that a dominating tower should express civic pride as in the new Los Angeles City Hall, nearly three times the 150-foot height limit for the city; * or the Civil Courts building in St. Louis on the civic plaza.

* Compensating open space around the city hall was made the ground for justifying the variance from the charter limit.

When high buildings are harmonious with urban character and local individuality, the volumetric method of regulating heights, thus relating cubage to access and space, would seem to satisfy alike the demands of aspiration, architectural variety, economic utilization, and community health.

Yards and Building Lines

Regulations in zoning ordinances as to the setback of buildings are logically part of the yard, or area, requirements for the health and safety of the population. As Mr. Bassett has frequently pointed out, setback regulations in *zoning* are *front-yard* regulations, and should be so denominated, in order to impress upon the courts their fundamental relation to light and air around dwellings and safe area for children's play rather than their incidental advantages in future street widenings. Police power building lines, however, are in successful operation, as we see in the discussion of street widening in Chapter XII, and their purpose may be subsidiary to zoning, although primarily imposed with reference to ultimate street widths.

By far the largest number of cities regulate setback of buildings only by front-yard provisions in their zoning ordinances; and many of these provide for front-yard space only in residential districts, where naturally the police power reasons are the most obvious. However, the imposition of building lines in local business centers (as in Kenosha and Akron *) as a part of the zoning ordinance can certainly be justified on the grounds of health and safety, and we may look for a greater development of this feature, in combination with improvements in neighborhood shopping centers effected through platting regulations. The experience of Akron, just mentioned, should be especially studied because over twenty miles of thoroughfares other than in residential districts are protected by the building lines which are part of the zoning ordinance but shown on a separate map.

It is greatly to be regretted that the time limitations of the field study did not permit any first-hand study of the results of yard requirements in cities where zoning has been in operation a considerable period of time and where older districts could be compared with areas built up subse-

* The experience of Akron is discussed by Mr. C. F. Fisher in a paper, "Set-backs or Building Lines by Zoning or Otherwise," in Proceedings of National Conference on City Planning, 1928, which also contain discussion of the subject by Messrs. McNitt and Whitnall. For the experience of Kenosha see comments in Chapter XII.

quent to the passage of the ordinance. Cursory observation, however, made in motoring through residential districts in many cities, showed the striking improvement in the healthfulness and amenity of residential neighborhoods created in conformity with zoning regulations in comparison with more crowded areas previously built up. The local guides were quick to point out the improvements effected, especially in detached house districts, but no guidance was really necessary, so visible were the beneficial effects of dooryard play spaces, better light and air from increased space between dwellings, and the greater attractiveness of orderly building arrangement which is an important and recognized by-product of zoning yard requirements.

One phase of front or side yard regulation by zoning has attracted particular interest, — the provision usually called "vision clearance." The setting back of buildings on corners for the safety of those using the streets has been a successful feature of the zoning ordinance of Boston among large cities, and of Kenosha among smaller ones. Other cities visited which reported vision clearance are Altoona, Pa., Greensboro, N. C., Manchester and Portsmouth, N. H., Portland, Me., New Bedford, Mass., and Salt Lake City, Utah. Although the element of danger at corners would seem to be present whether in a business or residential district, some cities have hesitated to impose this yard restriction except in residential districts, as, for instance, in Duluth. In Kenosha the 8-foot vision clearance provision, which appeared to work a hardship on an apartment house, although adhered to, is accounted a distinct advantage in the case of corner stores. Developments in suburban districts of Boston, where vision clearance provisions have been in operation for nearly five years, emphatically demonstrate the value of these provisions.

There is another type of yard requirement which is closely connected with street traffic, discussed in Chapter XII; the requirement in downtown and also local business districts of suitable areas for off-street loading and unloading of trucks, inside lot lines and therefore appropriately a part of yard regulations. Such areas are required in very few zoning regulations, — Denver, West Palm Beach, and Westerly were novel examples. The more recent requirement of automobile parking area in apartment house districts, also referred to in Chapter XII, is equally important. The zoning ordinances of Bronxville and Hastings, N. Y., and proposed ordinances for two or three New Jersey communities, require an area left open for automobile storage on apartment house lots.

Courtesy of Kenosha City Planning Commission

An apartment house corner, showing setback

An old corner in Kenosha which suggested the requirement

Vision clearance as required by zoning ordinance

STREET CORNERS SHOWING VISION CLEARANCE, KENOSHA, WIS.

Density of Population Under Zoning

When we speak of density of population as regulated by zoning, we usually think of specific density regulations in residential districts, — restrictions as to number of families per acre or number of square feet per family, or whatever similar basis may be used. Density of development is of course equally affected by regulations as to land coverage and building cubage. In the original comprehensive zoning ordinance of the country (New York), there was no attempt to regulate density other than by the indirectly stated methods of height and area restriction; and by no means all the zoning ordinances of to-day include a density provision, although this is now specifically recommended by its inclusion in the Standard State Zoning Enabling Act. Among the zoned cities included in the field study almost twice as many do as do not regulate density of population by direct methods, and some which do not are now empowered to do so by state legislation subsequent to the passage of their existing ordinances.

The great attention which has been paid to decreasing density of population in detached-dwelling districts has perhaps drawn attention away from the really pressing problem of *preventing congestion in least restricted districts.* The question was asked in most of the cities: "Do you allow congestion in your least restricted districts?" and it was apparent that too many cities did, although a considerable number indicate density restrictions for residences in zones for other uses. This whole matter of congestion in least restricted districts is one of vital social concern, which needs further study and publication of facts.

The series of articles by Mr. John Taylor Boyd, Jr., "How Intensively must we Use the Land," in the *American City* suggests valuable economic aspects of the subject of apartment housing. What we particularly should have in addition is an analysis of degrees of residential congestion permitted in many cities under zoning ordinances, building codes, and housing laws, which will show how far zoning must go before its benefits are equally distributed. We must look to the National Housing Association and Mr. Lawrence Veiller for just such a study and for its presentation in startling form.

Density of business population suggests another slant on this subject of lessening congestion, toward which volumetric regulations are directed. It is overwhelming to grasp the conception of a business population so dense in one spot as that housed by the new Chanin Build-

ing in the City of New York, — indeed if its 10,000 tenants were on the street at one time, they would crowd a fifteen-foot sidewalk for half a mile.* In the Official Plan of Cincinnati will be found some interesting facts on the relation of building height and sidewalk capacity. It is not to be expected, perhaps, that density regulations in office and industrial districts in terms of workers to the acre can be laid down under zoning, but every possible means should be taken to reduce the undesirable conditions of congestion surrounding business and industrial workers during more than half of their waking hours in most large cities.

Types of Use Districts

The natural tendency of the earliest zoning ordinances was to make the number of use districts as few and simple as possible, especially since the attitude of the courts as to differences of degree rather than kind was still unknown. A reaction from over-loose classification of uses shortly followed, which went much too far in the direction of minute use-classification or too great elaboration of other regulations.

No critical study of zoning ordinances has been made in connection with this field study for the purpose of determining the most common or desirable use classifications for communities of various types and sizes, — indeed this would in itself be an arduous, time-consuming task productive only of approximate standards, since each community presents an individual problem not to be solved by being poured into a common mould. However, it is generally agreed that for a city with all-round functions, the following use-classifications are frequently adequate: single-family dwellings, multiple dwellings sometimes divided so that apartments may be separated from two-family houses, local business, general business, light industrial, and heavy industrial, to which may sometimes be added an unrestricted zone classification, although the desirability of omitting any part of the city area from classification is a debatable question. In small communities frequently an even simpler classification is possible such as single-family, general residence, business or commercial, and industrial.

A provision of use classification which needs further study is the expressly-stated exclusion of residences from heavy industrial districts, as in Milwaukee, Pittsburgh, Altoona, Canton, Richmond, and Tulsa, — a

* Statement by Mr. Lawson Purdy in paper at the National Housing Conference, Philadelphia, 1929.

less common regulation, which has a very direct relation both to the efficiency of industrial sites and to healthful environments for home life.*

Court recognition of the validity of the single-family residence district has placed this classification in a safe position, following years of discussion between those on the Pacific Coast who quite rightly fought for open acknowledgment and preservation of a very generally recognized social benefit, and those in the East who, equally desiring the same result, feared to state use-restrictions for single homes by that name, when appropriate height and area limitations tended to produce a single-family type of development. The evolution of zoning in practice, and court recognition of the safety, health, and moral considerations distinguishing single-family homes from any form of multiple dwellings, have combined to remove obstacles from an open statement of a socially important classification.

Studied Relation of Space Requirements

Appropriateness for a given density and type of development is by no means the only criterion for the determination of residential, business, and industrial districts on zoning maps. A considerable number of zoning ordinances which have stood the test of time were based on very careful studies of space requirements, present and future, for all the various types of uses which make up the community.† Recently space requirements have been subjected to critical analysis, notably in Chicago, Los Angeles, Milwaukee, Minneapolis, and Washington, D. C., as a result of discoveries that too much area was being allotted to one purpose and not enough to another. These quantitative studies for zoning are discussed in a most illuminating fashion in Mr. Bartholomew's National Conference paper already mentioned, "What is Comprehensive Zoning?" The Washington studies there described in some detail,‡ which were made as a basis for changes desirable in the zoning ordinance, showed the actual and anticipated exhaustion of land for given uses, and on this analysis the authorities refused to break up single-family districts for row-houses, for which land was found to be available elsewhere. In the

* Whether or not the courts will uphold the exclusion of residences from all industrial districts is uncertain, according to Mr. Bassett's comment in *City Planning*, July, 1929, but where the land is suitable *only* for industry, such exclusion would be upheld.

† For instance, see diagram on p. 23 of the very valuable report "Zoning for Boston," prepared by the City Planning Board in 1924.

‡ These studies are commented upon, but not printed, in the 1928 Annual Report of the National Capital Park and Planning Commission.

course of the study, the tendency toward over-zoning for local business was markedly evident.

It is this phase of zoning which has received the most general attention, in its relation both to zoning and to platting. The studies of the Chicago Regional Planning Association as to retail business frontage, for varying population densities, have been crystallized in the accompanying diagrams, and also discussed by Mr. Coleman Woodbury in an article "The Size of Retail Business Districts in the Chicago Metropolitan Region." * The Chicago conclusion that an average of approximately 50 feet of developed business property is required for each 100 persons seems to be borne out in a large number of communities, as for instance by the studies made in preparation for the Altoona zoning ordinance, and also by earlier studies in St. Paul. This basis has been used in Portland, Ore., to arrive at the striking computation that exclusive of downtown business property, the zoning ordinance allows local business frontage to serve 2,000,000 people.

The Los Angeles studies were occasioned by excess provision of business area in the city of Los Angeles estimated by Mr. Gordon Whitnall to be 100 per cent over and above any probable future needs. Mr. Whitnall's studies for the City Planning Commission and those of Mr. A. E. Williamson for the Regional Planning Commission have been set forth in the *Community Builder* (Feb. and June, 1928) with exceptionally vivid illustrations. The Regional Planning Commission diagram shows the relative proportions of business and business zones to population in several communities of the county, in such a way that great discrepancies are apparent between the areas now zoned for business and the populations needed to support this. In Burbank, Cal., with a present population of 20,000, enough frontage is zoned for business to serve a population of 1,500,000, yet the maximum population possible under the zoning ordinance is 125,000. In Pasadena, a city of about 75,000 population, enough area has been zoned for business to take care of a population of well over a million. Another diagram shows that if all the proposed 100-foot highways of Los Angeles County were to be zoned for business, there would be enough business frontage to stretch from Los Angeles to New York and back to the State of Washington! Another way of stating this is that, if present policies in Los Angeles County were pursued, there would be enough business frontage to take care of more than the entire

* *Journal of Land and Public Utility Economics*, Feb., 1928, also published as Bulletin No. 5, of the National Conference on City Planning.

population of the United States! This *reductio ad absurdum* is just what is needed to bring home to business men and realtors the quantitative as well as qualitative factors involved in zoning.

The City of Milwaukee studies made for the Board of Public Land Commissioners * revealed that only a third of the business frontage so zoned is actually being used for business purposes, with about 10 per cent of existing stores vacant. The Milwaukee County Regional Planning Department has also been conducting studies as to business requirements in the Milwaukee region. In Boulder, Colo., it was found that six times as much area is zoned for business as is now in use. In Dayton it was frankly stated that business districts were made larger than city planning studies justified, as a matter of expediency. In Duluth interesting studies of office space possible under the zoning ordinance revealed allowance for enough space to serve 20,000,000 people, if buildings were developed to maximum permitted height and areas, although the maximum permitted densities of development for the whole city area provide for a future population of only about 1,000,000.

In Santa Barbara it was found that 91 per cent of the city area is zoned for business and apartments and only 9 per cent for single-family dwellings, — a zoned business frontage to care for ten times the present population. If density of population observed in the apartment areas of Washington were to be used as a basis for calculation of anticipated population in the multiple-dwelling districts of Los Angeles, the Los Angeles zoning ordinance is reported to permit of a population of almost 20,000,000 in multiple-dwelling districts alone. The opposite side of the picture is revealed by the studies for Minneapolis (see diagram accompanying Mr. Bartholomew's paper) where there is very little vacant area now zoned for apartments.

From the information obtained during the field study it would appear that less attention has been paid to balance of types of residential districts in zoning ordinances in relation to anticipated population than to proportion of business frontage, and this suggests a particularly important and productive field for special study.

In making and using quantitative studies it should always be remembered that limiting circumstances should be clearly set forth. For instance, population housed in six-story apartments, with a given density of population, may be able to use two-story business frontage which would be unproductive in single-family residence districts. However,

* See *City Planning*, Jan., 1929, article by Mr. C. B. Bennett.

taking everything into consideration, although the figures for one city and region may not be directly applicable in another locality, they are immensely valuable as a comparative guide, and observation would seem to show that, as the experience of the Chicago Region has been reflected in Altoona, Pa., local studies tend to be confirmed by studies elsewhere.

Constructive Effects of Zoning

The argument that zoning stabilizes property values is supported by the actual results of zoning regulations in cities all over the country.* In every city visited where zoning has been in effect long enough for any influence to be appreciable, property values are reported stabilized and in many instances substantially increased. In White Plains, N. Y., it was stated that zoning is held directly responsible for an increase of $30,000,000 in assessed property values. In Oklahoma City, zoning is held to have increased all property values throughout the city. In Bismarck, N. D., it is found that people are willing to pay more for residence property now that residence districts are protected by zoning. A prominent realtor in Atlanta estimates that the damage due to lack of enforced zoning between 1926 and 1928 (the period during which zoning was declared unconstitutional in Georgia) was $15,000,000; and this very great damage is ascribed to the sudden release of "dammed-up restrictions," — a tremendously striking illustration of the unrealized damage to property which is going on in a less spectacular way in dozens of unzoned communities. When territory is annexed to the City of Milwaukee, according to local rulings, the zoning already in force in that territory is automatically canceled, creating a hiatus until a new ordinance can be framed, — a dangerous situation contrasting with that in Lincoln, Neb., where annexed territory automatically becomes residential.

Great damage was done in St. Louis, Mo., during the hiatus in zoning, from the approximately $10,000,000 worth of "pirate buildings" erected. In St. Louis also we find one of the best examples of the direct financial benefit to property of appropriate zoning regulations which may be found anywhere in the United States. In Lindell Boulevard, before zoning, property was stagnant and realtors desired that it should be zoned commercial, hoping thereby to double property values. Instead the city planning commission deemed it more appropriate to zone the frontage for multiple dwellings. Since May, 1926, $20,000,000 worth of apart-

* Although a very few realtors and municipal officials in New Jersey answered "no" to the question of the State League of Municipalities: "Has zoning stabilized and enhanced real estate values?", an overwhelming majority answered "yes". Cf. page 176.

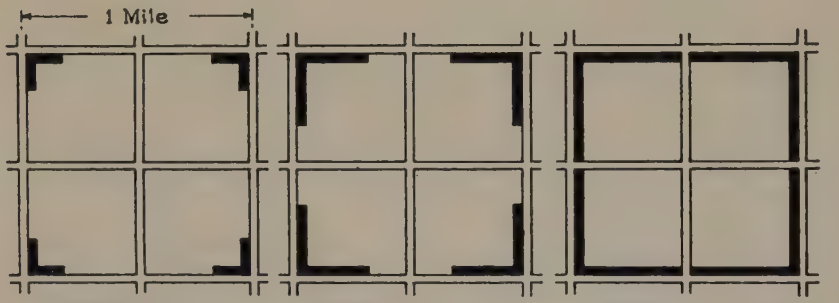
RETAIL BUSINESS FRONTAGE

REQUIRED FOR VARYING POPULATION DENSITIES

ON ONE SQUARE MILE

Av. Number People per Family = 4.4+
Av. Business Frontage Per Capita = 0.504 Ft.
(based on actual measurements in 41 Municipalities of the Region of Chicago)

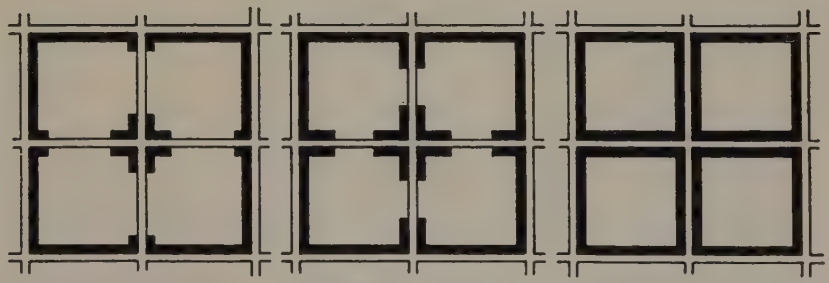
Total Acreage 640 Ac.
Acreage in Streets 189 Ac.
Acreage for Building 451 Ac.
Business Frontage



6 Families per acre
12,000 People per sq. mile
6,000 Ft. Business Frontage

12 Families per acre
24,000 People per sq. mile
12,000 Ft. Business Frontage

18 Families per acre
36,000 People per sq. mile
18,000 Ft. Business Frontage



24 Families per acre
48,000 People per sq. mile
24,000 Ft. Business Frontage

30 Families per acre
60,000 People per sq. mile
30,000 Ft. Business Frontage

36 Families per acre
72,000 People per sq. mile
36,000 Ft. Business Frontage

CHICAGO REGIONAL PLANNING ASSOCIATION
Burnham Bldg Chicago

Courtesy of Chicago Regional Planning Association

The Association has continued the study of retail business frontage in the Chicago Region, to show the situation each two years in the communities measured

ments have been built on this street and property values have increased far more than double: property purchased for $18,000 before zoning sold for $75,000 in 1928. Similarly in Washington, D. C.,* a dead area between 18th and 23rd Streets, N. W., was zoned largely residential in spite of pressure for "second commercial" uses, and a large apartment development, stimulated by Potomac Park and Arlington Bridge, has resulted, with a great increase in values. Another beneficial effect of the Washington zoning ordinance has been the stabilization of the central retail business district.

Other cities could show striking instances of specific increases in land values due to zoning, but even those communities which have no startling figures to report could undoubtedly point to the general favorable effect of zoning regulations on residence property after the threat of encroachments by inappropriate uses had been removed. The stabilization of the value of older houses is illustrated in Springfield, Mass., where houses built forty years ago are holding their own in neighborhoods improved since zoning.

The protection afforded property values by zoning has been quickly recognized by financial institutions everywhere. In Evansville, directly after the passage of zoning, a national insurance company authorized the issuance of 10 per cent additional loans on residential property. In the National Capital Region an insurance company was reported not interested in making loans on residential property in Virginia because it was not yet zoned, but was glad to make loans in Montgomery and Prince George's counties recently zoned. It is believed that part of the driving force behind the successful effort to reëstablish the validity of zoning in New Jersey was undoubtedly the fact that suburban property in New Jersey was suffering in comparison to similar property in the zoned communities in the State of New York. In Portland, Ore., it is much easier for a prospective home owner to secure loans for residential development in the most restricted residence zone, and loan companies decide the amount to be loaned according to the zone in which the property is located. In many cities financial institutions will not loan money on any development that conflicts with zoning.

The increase of property values in local business sub-centers has also naturally resulted where there has been an appropriate limitation of the amount of business property available, — indeed sometimes values seem to have been unduly increased. A desirable increase in values was com-

* Facts from unpublished notes by Major Carey H. Brown.

mented upon in Ponca City, Okla., and has been observed especially in other small cities and suburban areas. Indeed zoning has created outlying business centers and business location values, coincidently with the stabilization of residential property.

Zoning has thus had a distinct influence on trends of suburban growth in the creation of new sub-centers, with an improved type of development, reported in a considerable number of cities, among them Atlanta, Ga., Chattanooga, Tenn., Lincoln, Neb., and Durham and Raleigh, N. C. In Wichita, Kan., the influence has been so marked that the city has been able to require fireproof buildings in these local business centers.

There is no doubt that zoning has tended to attract industry to districts appropriately located and restricted for this purpose. In Buffalo a map showing zoned industrial areas is used in commercial advertising. The localization of industry has been considered highly desirable in Omaha, Neb.; and in Providence, R. I., the Chamber of Commerce reported that zoning has distinctly tended to attract industry since manufacturers know exactly where plant and workers can be located. The Los Angeles Chamber of Commerce is promoting industrial reservations to be held in trust in Los Angeles County, selected in coöperation with the Regional Planning Commission. The Milwaukee County zoning has already demonstrated its effectiveness in showing the areas appropriate for industry; and similarly in Minneapolis, Minn., and Rochester, N. Y., the attractive effect of land definitely made available for industrial development was reported.

The economies to be effected in expenditures for municipal engineering through zoning regulations have been pointed out particularly in the publications of the Board of Appeals arguing the advantages of zoning for Baltimore. Although no definite figures were available as to these savings in any of the cities visited, a very considerable number reported that economies were being constantly effected in street lighting, sewerage and water-supply, and in street pavements. In St. Paul, where standard street widths are being adopted for the different types of use districts, the saving in pavement cost is patent. In Duluth the new street lighting zones are being based on zoning and on the major street plan, so that considerable future economies are anticipated; and similarly in Knoxville, Tenn., zoning is being used as a basis for a comprehensive street lighting system and also for a large sewer project, both of which will bring about striking economies. It would be interesting to know how much saving has been effected in the City of St. Louis through

needed improvement costing $1,000,000 should eliminate a loss of even $1000 a day, the net savings for the first four years alone would far exceed the million dollars. However amusing it may be thus to juggle figures and present startling results for the metropolitan cities of America, the fact remains that the economic losses in hundreds of smaller communities are very considerable, and that on the grounds of waste alone, planning an efficient major street system is a matter of common business economy.*

The appalling loss of life in street traffic accidents caused directly by imperfections in the city plan, — by railroad grade crossings, by blind intersections, by street jogs, by dangerous curves, by inadequate street widths not adapted to the traffic load — is an even more potent argument for major street planning. From these defects in the street system and from reckless driving, pedestrian carelessness, and other automobile causes, arise one-fourth of the almost 100,000 annual deaths from accidents in the United States. Even though the human factor in street accidents can never be eliminated by planning, nor entirely by educational campaigns such as those conducted by the National Safety Council, circumstances can be made favorable, by providing proper traffic channels and appropriate traffic regulations, for an immense saving of life and limb.

In planning a major thoroughfare system, a traffic analysis and forecast must precede the selection of main routes and the designation of street capacities to carry future traffic.† The Boston Metropolitan region offers a striking example of coördinated study in which the Boston City Planning Board, Mayor's Street Traffic Survey, and State Division of Metropolitan Planning are coöperating to produce a comprehensive street plan for the city of Boston as well as a complete highway plan for the Metropolitan District. The origin, destination, volume, and distribution of traffic have been surveyed with unusual completeness to serve as a practical guide for future plans.

The Annual Surveys of the last five years have revealed a large number of carefully studied major street plans completed or in progress, in the majority of cases as parts of more comprehensive planning studies, and frequently published as parts of comprehensive city plans. Among cities visited in the field study where major street plans are now in advanced stages of preparation — sometimes revised from earlier studies —

* For a series of papers treating all phases, "Planning for City Traffic," see *Annals of the American Academy of Political and Social Science*, Sept., 1927.

† See paper "The Traffic Analysis and Forecast in its Relation to Thorofare Planning," by Robert Whitten before National Conference on City Planning, 1929.

are Akron, Pittsburgh, Dallas, Houston, San Diego, San Francisco, and Sacramento. Great regional street system studies are going forward for the regions of Philadelphia, New York, Buffalo, Detroit, Cleveland, Chicago, Milwaukee, and Los Angeles, some of these having been sketched in preliminary publications and others being worked into increasing detail as opportunity for construction offers.

Among the most noticeable special reports on street systems which have been completed and published are those for Los Angeles, New Orleans, Des Moines, Knoxville, Tenn., Oakland * and Santa Barbara, Cal., Canton, O., Louisville, Denver, Portland, Ore., Harrisburg, Pa., Paterson, N. J., Hartford, Conn., and Providence and Westerly, R. I. Although street system plans have been prepared in Detroit and Milwaukee, these have not been presented as a whole, but revealed in piecemeal fashion to avoid overwhelming the respective city councils, in accordance with the policies already noted. Unpublished major street plans for Bridgeport, Conn., Greensboro, N. C., Indianapolis, Madison, Wis., and Minneapolis, have been developed in the last few years, and a plan for the city of Cleveland is now being incorporated into the recent regional studies. Denver is just at the point of completing the restudy of the major street plan for incorporation into the city's master plan. All the cities with published comprehensive planning studies have more or less detailed studies for major streets as backbones to their city plans, which frequently recommend priority programs for developing the most urgent and feasible street links.

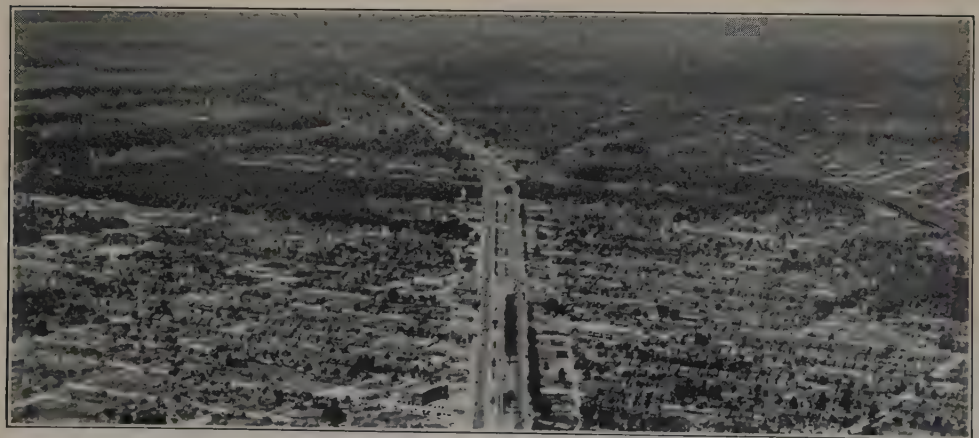
Street Plans Being Carried Out

Street system improvements formed a substantial part of the accomplishments of the cities with notable comprehensive city plans discussed in Chapter IX. The work of the Chicago Plan Commission in achieving Michigan Avenue, La Salle Street, Wacker Drive and dozens of other widenings and extensions (completed, in progress, or authorized) offers perhaps the most striking example of corrective street improvements, costing immense sums, but returning immense benefits to the city in improved flow of traffic and increased property values. Although St. Louis has had to spend far less, the great improvements carried out there have perhaps more completely constituted a system, and produced exceptionally efficient channels of circulation.

* The Oakland major traffic street plan prepared under the direction of the semi-official Committee of One Hundred was officially adopted by the city council in 1928.

Courtesy of Rapid Transit Commission of Detroit

Proposed ultimate development, 204-foot Super-highway



© Kalec & Forster

Courtesy of Wayne County Road Commission

Woodward Avenue Super-highway, present development

SUPER-HIGHWAY, DETROIT REGION

Corrective improvements in central Detroit have been almost eclipsed by the remarkable progress in fixing the master plan of super-highways. It is stated that from 1925 to 1927 the super-highway commissions of the region acquired 613 miles of right-of-way frontage, 85 per cent of which was dedicated or released by quitclaim deeds with no cost to the municipality; about one-third of the entire system has now (1929) been dedicated. In 1927 an extremely interesting compiled record of street openings and widenings covering a period of over eight years showed how much had really been accomplished by the Detroit City Plan Commission on major and minor projects within the city. A significant experience in street development in Detroit appears in the Vernor highway, originally recommended by the City Plan Commission to be built 100 feet wide but authorized in 1919 only 80 feet, so that in less than ten years it must be again widened (this time to 120 feet), before the construction of the narrower street is actually finished on the ground!

A study of the Cincinnati comprehensive plan report, in which annotations have been made as to street projects under way or completed, reveals that this official plan is being firmly fixed as the master skeleton of future development largely by pavings and widenings, and that detailed studies by the planning commission are following up the original plan recommendations. Dedications in new subdivisions extend the plan in areas now developing.

In the Chicago Region, in unincorporated territory there are 100 miles of actually dedicated highways 200 feet wide, 400 miles of 100-foot right-of-way dedications, and 350 miles of 80-foot dedications, all parts of a connected regional street system resulting from the work of the Chicago Regional Planning Association. In the Cleveland Region and in Portland, Ore., there is also a very notable record of street widenings and extensions for main traffic routes in outlying areas. In the city of Evansville, Ind., each year the major street plan is fixed by dedications in newly developed areas even though no beginning has yet been made on replanning projects recommended in the major street report. Where funds are lacking for corrective street improvements, as in Evansville, cities may still make a most effective use of a comprehensive street plan and feel that through the conformity of streets in new plats to the city plan, substantial accomplishments may be recorded. Through priority paving programs, too, as in New Orleans where the comprehensive city plan is not yet quite complete, considerable progress may be made each year in preparing for use routes designed as major thoroughfares.

Among central district improvements, the marginal thoroughfare for St. Paul is outstanding: construction is well under way, thus initiating the ultimate scheme of a traffic way around the business center. Large recent bond issues assure further progress in developing the street system of St. Paul in accordance with the comprehensive plan, with coöperation from Ramsey County.

Los Angeles offers a spectacular example of progress on highway system construction, the first and second units of the major traffic street plan prepared for the Traffic Commission of the City and County of Los Angeles being constructed, under way, or authorized, to the tune of about $100,000,000, — one of the most extensive programs for major streets in the country, approved by popular referendum and supported by bond issues and special taxes.

San Francisco is constructing a $10,780,000 boulevard program voted in two recent bond issues, of which the shore boulevards are major features, tremendously popular as fast as they are opened to use.

Substantial progress has been made on the "greater motorways system" for the Buffalo region, officially adopted by the Erie County Board of Supervisors in 1925. In Niagara County also, the work of the Niagara Frontier Planning Board has effected the Lake Shore (inter-county) highway and initiated other main arteries.

The progress in establishing the official street plan of Schenectady has already been noted, and likewise features of the comprehensive street plan in Memphis. Important improvements in Memphis and also Dallas are illustrated by "before and after" pictures here given.

Of the Dallas master thoroughfare plan, still in final stages of preparation, about two and a half projects have been carried out each year; some of these are particularly interesting because of their 100 per cent financing by benefit assessment. Space does not permit here a discussion of financing street plans, separate from the general analysis in Chapter VIII of bond issues, benefit assessments, and payments from current revenues. Particularly in street widenings and street openings through blighted districts, the benefits created have been very great — as we see from examples given later in this chapter — and the city is clearly justified, when sufficient powers exist, in assessing a large share of the cost of street plans on property owners to whom the benefits accrue, just as, in unbuilt areas, land needed for major arteries is freely dedicated by subdividers, without cost to the city, in return for the obvious advantages of access and frontage.

Street Widening

Street widening may be accomplished by condemning* the necessary abutting property and immediately extending the pavement and sidewalks to the new street lines; or a setback building line may be established, in front of which no new buildings or replacements may be built; or if these methods are too expensive or too slow or in any other way impracticable, the sidewalk may be set back under a one-story arcade carved out of the street floor of existing buildings, the roadway being extended to the former street line.

The last-named method has been rarely used in this country, partly because often it does not give enough additional space to afford needed relief and partly perhaps because its advantages are less appreciated here than abroad. The Vesey Street arcading in New York is the most discussed American example of the use of this method in securing additional street area, in that case found prohibitively expensive by any other means. For short distances in central Philadelphia, arcades have been resorted to for street widening purposes: the arcade on the 13th Street side of the new City Hall Annex is considered admirable in height, width, and design. The attractive sidewalk arcades constructed in the shopping center of Santa Barbara after the earthquake have facilitated some street widening; and even where the arcades are broken, these have added to available sidewalk area although not primarily a drastic street widening measure. Similarly arcaded sidewalks in the business section of Ojai, in California,† provide for shade and unified architectural effect rather than wider pavement. In Portland, Ore., the East Burnside Street widening included several instances of arcading, believed to be a suitable method in that somewhat rainy region, although it is scarcely possible to judge here the effect of arcading on business because of the unfavorable effect of dense traffic on the whole length of the widened street.

The Citizens Committee of Pittsburgh prepared models illustrating street widening by arcades, shown at the City Planning Exhibition at the Carnegie Institute in 1925. Proposals for arcading have been made in Cleveland, Baltimore (Lexington Street), and in New York for Fifth Avenue, but the Fifth Avenue Association strenuously opposed this on grounds of alleged damage to retail trade.

In spite of fears for darkened sidewalks, and less conspicuous window

* Cf. the discussion in Chapter VIII of the use of excess condemnation in street widening.

† Described in *American City*, Sept., 1927.

fronts, the immense popularity of the Rue de Rivoli in Paris, of the Burlington Arcade in London, and indeed of the arcades cutting through newer buildings in the 42nd Street district of New York, where shopping may be leisurely done, rain or shine, suggest the as yet unappreciated value of this method of street widening in large cities.

The most common method of street widening used in carrying out comprehensive street plans is found in the establishment of building lines * and lines of mapped streets. Building lines may be imposed under the police power in zoning ordinances and in separate building line ordinances; they may be established by eminent domain easements; or they may be shown upon recorded plats, having been imposed by platting regulations or voluntarily placed in deeds of conveyance. There is an increasing tendency toward voluntary dedications for street widening, brought about by the support and coöperation of subdividers and property owners.

Police power building lines have in the last few years been justified by the courts, notably in the Windsor decision of the Connecticut Supreme Court, holding that "Streets properly located and of suitable width help transportation, add to the safety of travel," as well as furnish better light and air. As we have just seen in the preceding chapter, reasonable front-yard building lines as features of zoning ordinances can scarcely fail to be upheld. Building lines as part of the official map are permitted under the laws of the State of New York, and Schenectady has been a leader in developing a system of setback lines along mapped streets. Kenosha, Wis., has also been successful in using police power building lines to encompass street widenings, cases having been kept out of court by agreements. Buildings to be substantially altered or added to are required to go back to the building line, the city paying for moving back or cutting off the front. The fact that over $3,000,000 worth of buildings have been erected in conformity with building lines in Kenosha, in accordance with the comprehensive city plan, may be attributed to the popularity of the early setbacks secured by voluntary consent even before zoning went into effect, so that citizens had become accustomed to the idea and "sold" on its advantages.

In Los Angeles County, police power building lines to facilitate street widening are established by a separate ordinance.† In Milwaukee

* A recent valuable paper on setback lines by Judge Randall of Wisconsin is summarized in *American City*, Apr., 1929.

† The famous Thille case decided in favor of the City of Los Angeles in 1927 upheld the validity of police power setback lines. See *Pacific Municipalities*, Apr., 1927.

County the special highway widening act permits police power setbacks on certain major types of roads,* and, since the county zoning enabling act permits police power setbacks on any road, this power is about to be invoked to protect roads not yet covered by the special act. The method of posting signs all over Milwaukee County indicating both future street widths and uses under zoning is extremely valuable in impressing on the people that there is an authoritative plan, conformity to which thus becomes easier because expected. In Cleveland, the building line on Euclid Avenue to which new buildings, superseding residences, had to be set back really gave rise to the business men's agitation for street widening. The many building lines established in accordance with the Cleveland major thoroughfare plan have been both popular and valuable: over half of the widenings proposed in the plan are now covered by building lines, which may be incorporated in the zoning ordinance when this finally is secured.

Following the example of the successful building lines established under authority of the District Commissioners in Washington, the Maryland-National Capital Park and Planning Commission has the power to establish building lines by separate ordinance, but is now encompassing the same end by front-yard provisions and conditions of plat approval. In Oklahoma City, the city recently refused to annex a subdivision until an easement along a major street was dedicated for future street widening, and building lines are often demanded as a condition of plat approval. In Durham, N. C., without establishment by law, building lines are being placed on all narrow streets, the city standing ready to condemn the necessary land if property owners call for this. Only a coöperative public would make such voluntary building lines long effective.

Eminent domain building lines differ from front yards established by zoning, or by separate ordinance under the police power, in that the municipality takes an easement between the building line and the street line and must pay for this right to keep the strip open. Since in residence districts the benefits may equal or even theoretically exceed the damages, and so more clearly justify police power lines, this eminent domain method has been most frequently invoked for widenings in central built-up areas.

Some of the most striking examples of the operation of eminent domain building lines in facilitating street widenings are to be found in Hartford, Conn., where, for many years, without any comprehensive

* Cf. reference to Pennsylvania state highway building lines in Chapter V.

plan, eminent domain building lines, varying from 15 to 25 feet or deeper, have been almost universal, and applicable to commercial, industrial, and residential sections. The city council has been very strict about vacating building lines once these have been established; and their presence has made possible such a large amount of street widening at so trivial a cost that no recourse has been necessary to bond issues, all costs being paid from current funds. It was stated in Hartford that building lines varied on different streets, on both sides of a street, and even within a block, and that building lines have not been run through existing buildings, requiring them to set back when replaced, because under eminent domain it was found in Hartford nearly as costly to establish such a line as to take the necessary portion of the building.

In Memphis no very extensive use has been made of the setback building line ordinance of 1923, but the intention is to place building lines on all major streets not of adequate width for future traffic. In those cases where building lines have been used, damages have nearly always been zero. The Union Avenue setback line is estimated to have saved the city about $50,000 on one building. It is interesting to note that when land is actually purchased in Memphis in advance of widening, the sum plus reasonable interest is added to the cost of development at the time of development and then assessed back against benefited property. In Greensboro, N. C., when a man proposes to build where building lines are established, the city has to buy the necessary land but no payment is made until the proposed building is erected. In Duluth building lines on commercial streets under eminent domain have been in force for several years. Eminent domain building lines have been established in Indianapolis by the Park Board (an independent taxing authority) along boulevards, — notably Meridian Street, where the establishment of 75-foot lines along both sides for over two miles caused damages of only $10,000.

Court decisions upholding the constitutionality of building lines under power of eminent domain have given prominence to building lines in Kansas City, Mo., and Pittsburgh. One of several setbacks established in Rochester, N. Y., for the purpose of street widenings has not been very successful; and Norfolk, Va., reported that experience with building lines had proved their value only as the city secured donation of almost all the property needed for the Monticello Avenue widening as a result of their existence.

The somewhat confused experience of Minneapolis in using eminent

domain building lines substantially to effect zoning purposes, prior to the grant of comprehensive zoning powers, has been described in some detail in *City Planning* (January, 1929) as a result of this field study. There have also been noted (April, 1929) more briefly the eminent domain building lines established in Portland, Ore., by petitions of property owners on streets proposed for widening, the setbacks on fifteen streets varying from 5 to 40 feet.

There is no doubt that whatever general advantages eminent domain building lines may have had in built-up districts, the extension of powers expressed through zoning, and the recently declared validity of building lines established by platting regulations, point to the future employment of building lines for street widening under the police power in undeveloped territory, where there is usually such equalization of damages and benefits that the more clumsy procedure of eminent domain is unnecessary. The recent Pennsylvania decision in the Sansom Street case, however, would seem to indicate a trend of court opinion that as development approaches, the community must take the land designated for mapped streets.

Obstacles to a Convenient Major Street Plan

Some of the most common obstacles to the development of a convenient major street plan are found in rough topography, rivers, streams, and ravines, inappropriately located railroad yards and rights of way, extensive cemeteries, and large parks acquired independently of other city planning considerations.

In the part of Chapter IX dealing with peculiar local problems, we find that many cities are faced with difficult problems of adapting streets to sharp hills and valleys, — Asheville, N. C., Akron and Cincinnati, O., Pittsburgh, Altoona, and Johnstown, Pa., Kansas City, Mo., San Francisco, Seattle, Duluth, St. Paul, and Providence, R. I. The breaks in the street system caused by rivers are keenly felt in Council Bluffs, Omaha, Topeka, Dayton, Fort Wayne, Johnstown, Chattanooga, Knoxville, Little Rock, Oklahoma City, Minneapolis, Sacramento, Portland, Ore., Rochester, N. Y., Washington, D. C., Hartford, Conn., and Springfield, Mass. Norfolk, Va., hemmed in by water areas, has been overcoming the handicap by building a series of bridges in accordance with its comprehensive city plan. In Glynn County, Ga., the marshes and streams form obstacles to a well rounded street plan. It is nearly always found difficult to secure authority and appropriations for a sufficient

number of necessary bridges. In Denver expensive viaducts have been and will be required to enable major streets to straddle both rivers and railroads. The obstructive effects of railroad locations on free circulation of traffic in many cities are suggested in Chapter XIV.

Serious interference with desirable traffic routes by cemeteries have been observed in Akron, Baltimore, Detroit, El Paso, Houston, Richmond, Springfield, Mass., and also in San Francisco, where five are grouped at an unstrategic point. In some cities, — for instance, Detroit and Norfolk, Va. — widenings along the edges of cemeteries are permitted, but not streets cutting through. In both San Diego and Hartford, the central location of large parks combines with numerous cemeteries to create awkward barriers to traffic.

Few cities, as we see in Chapter XV, condone an attitude expressed in one large port of the Pacific Northwest, where parks are said not to be permitted to form an obstruction, because when that stage is reached, streets are put right through. On the other hand, defenders of Central Park in New York have long fought proposals to intercalate traffic streets. The park department of such a richly-endowed park city as Hartford must be thoroughly convinced that all other remedies have been exhausted before parks are allowed to be cut up. Savannah manages the many small squares, which are really something of an obstacle, by alternating each row of these squares with an express through highway. Balboa Park of 1600 acres in the center of San Diego is proposed to be crossed by sunken roads analogous to those planned in 1858 for Central Park, New York; and indeed only by the depression of heavy traffic streets through parks can their destructive influence on legitimate park uses be mitigated.

Other barriers in the form of large areas devoted to universities, and the grounds of state or federal buildings, even a maladjusted civic center, may seriously interfere with provision for direct and desirable main routes.

Such obstacles suggest the importance of early comprehensive planning of areas for all the varied functions of community life and give substance to the theory of park wedges and of appropriately placed *outer* open development belts through which traffic pours at sufficiently frequent intervals to form inter-community connections. It should be pointed out that unless we have some conception of the limitation of metropolitan growth by buffer areas, in spite of present-day comprehensive planning, the future will be counting as obstacles the open areas which are the blessings of to-day.

Features of Street System Design

The term "master plan" has been used in the Standard City Planning Enabling Act as applying to a plan indicating, as part of a comprehensive scheme of development, the general location of arterial and major highways; and the term "major street plan" has been used as applying to the more detailed development to which minor streets in new subdivisions may be fitted, or rearrangements made in built-up areas. The master plan is essentially a regional conception, comprising the broadly sketched future arteries of travel, as, for instance, in Detroit, where the published master plan of super-highways has already been realized to a remarkable extent.

In the master plan and in the major street plan, as its exact lines become more definitely studied, radial arteries are of prime concern. It is astonishing how many of our cities have grown up with blocked and imperfect connections from the outlying suburbs to the central area, even where no natural obstacles have intervened. Boston has long been conspicuous among cities for well developed radials; and radial development is particularly sought in the recent great metropolitan plans for Chicago and Cleveland as well as Detroit.

For purposes of daily travel between residence and business, the design of a system of radial thoroughfares has become bound up with the design of systems of parkways and boulevards, as discussed in Chapter XV. Pleasant light traffic routes, free from heavy trucking, are demanded by the thousands of motor-commuters for whom country residence has been made possible by the automobile.

The immense coincident increase of freight transportation over the highways has made clear the need of special trucking routes, which passenger vehicles would naturally avoid or from which they would be excluded. Kansas City, Mo., which is exceptionally well provided with boulevards for passenger traffic, has recently prepared a comprehensive plan for "traffic ways" to give comparable service to heavy industrial vehicles. The Regional Plan of New York has studied this question and suggested (Survey Volume III) that such routes might first be provided in outlying districts by widening existing arterial streets and placing a motor truck roadway alongside the existing roadway, separated by a low curb. It is further suggested that the truck roadway "be carried over the principal cross traffic routes on a temporary structure, and eventually there might be a raised motor truck roadway in the center of the widened thoroughfare throughout its whole length," thus resembling railroad rights of

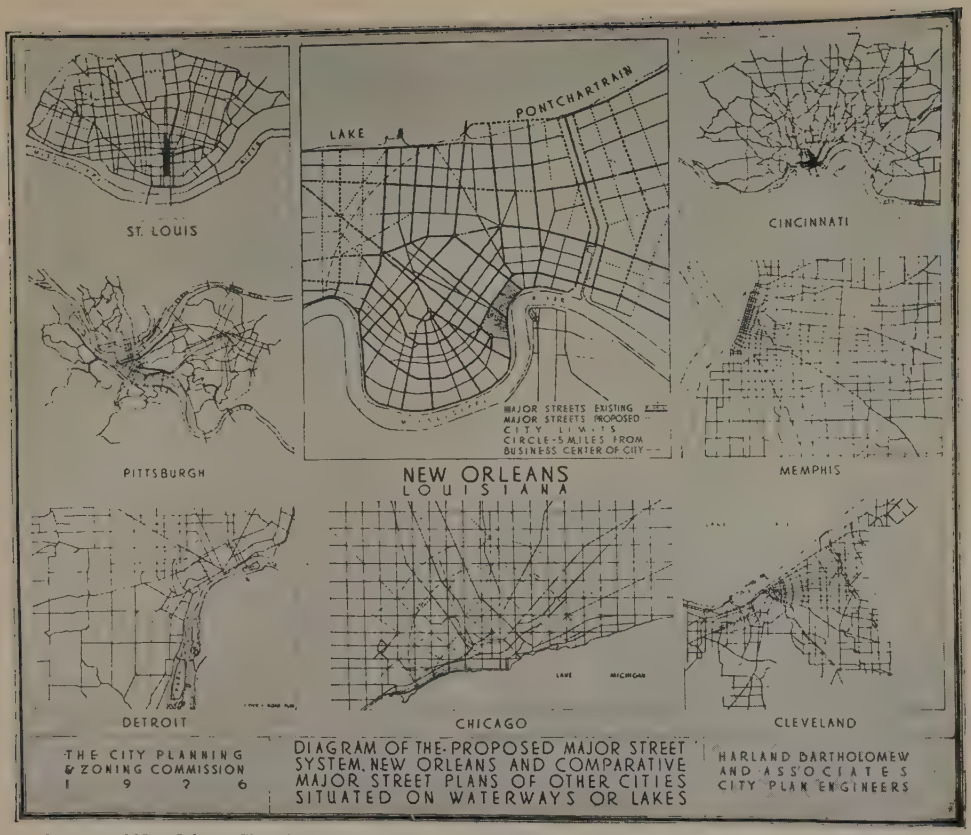
way. In the Detroit super-highways, rapid transit lines are ultimately to occupy this central position, and trucking is apparently to be mingled with other motor traffic at the side.

The necessity for separating heavy trucking from passenger traffic is particularly suggested by the situation of Council Bluffs, where the trucking of livestock goes down the main street day and night, since no adequate provision for by-passing this type of traffic has been made. The passage of heavy motor trucks is becoming much the same obstacle as railroad movement through city streets. Indeed, as the proper provision for various types of traffic becomes more understood in comprehensive planning, we may look for a corresponding differentiation of street functions.

Both pleasure traffic circumferentials or circuits, and trucking circuits on the analogy of the belt-line railroad, are now in process of being carried out as parts of major street plans. Light traffic outer circuits have long been developed as parts of park systems, but frequently the links have not been completed. Keeping unnecessary vehicles out of congested centers by the distribution of traffic from an inner circuit appears to be sought as far as possible in many plans proposed and under way. The progress in Omaha both on an outer circuit, including the river drive, and on the "inner belt traffic way" has been notable. An "inner circular boulevard" is part of the Kessler Plan for Dallas, now partly constructed.

The Board of Public Land Commissioners has recently prepared for the city of Milwaukee as a first step in a major thoroughfare system a plan showing a "cordon street arrangement" around the intensely developed section of the city, from which radials shoot off to connect with county highways established as part of the regional plan. The "cordon" arteries are expected to serve not only to by-pass traffic going from one side of the city to the other, but also to "lessen the number of vehicles percolating through residential areas where they are not wanted."

Grand Rapids is notable for the belt-line heavy traffic thoroughfare, an integral part of the state highway system, now under construction. This is to be 40 miles long, at a distance averaging four miles from the city, with a 100-foot right of way and a 40-foot concrete pavement. When finished, about 1930, this highway is expected completely to divert industrial freight traffic from the center of the city, — an important factor in relief of traffic congestion when the fact is revealed that truck traffic in Grand Rapids increased 100 per cent in the last year.



Courtesy of New Orleans City Planning and Zoning Commission

MAJOR STREET PLANS: COMPARATIVE DIAGRAMS

Courtesy of Westchester County Park Commission

GRADE SEPARATION, BRONX RIVER PARKWAY, N.Y.

The "inter-district traffic circuit" for Pittsburgh, developed in the plans of 1925–6, is now either completed or at least financed with the exception of one cross-town connection. When this has been effected, there will be a by-pass thoroughfare system available to carry through traffic around the Triangle and facilitate traffic movement between the various geographical sections of Pittsburgh.

The striking names of these examples just given suggest the distributing function which circumferentials are made to serve in the other comprehensive street plans now under way. The terms used for major streets in the Knoxville plan — principal radials, distributor and by-pass routes, and cross-town and interchange routes — appropriately indicate their functions.

There has been much study and discussion of desirable widths and cross-sections for the various types of streets which go to make up the total street system. The studies of the Chicago Regional Planning Association have had a particularly effective influence on the improvement of street standards in communities of the Chicago Region. Starting with the minor residential streets, — of which the design and arrangement may be largely controlled through platting regulations, — a 66-foot right of way is recommended, of which a strip 26 feet wide is to be paved if only single-family residences are to be built, but 36 feet paved if apartments are permitted. It will be noted that this 66-foot right of way allows for wider planted strips than the 60-foot or even 50-foot width so frequently assigned to minor streets, and, when the street is further kept open by setback building lines, produces a wide space for privacy, light, and air. For major streets, 80-foot rights of way with 56-foot pavements, and 100-foot rights of way with 76-foot pavements, are recommended, the latter for very dense traffic on business streets with no planting. These widths are based on the assumption that a lane for moving traffic occupies 10 feet and cars parked parallel to the curb 8 feet (for diagonal parking 18 feet).

There is some difference of opinion among city planners as to the unit to be taken for a traffic lane; but although the 9-foot lane has been extensively used for city traffic where the speed limit is 20 miles or less, current practice would seem to tend, as in Chicago, toward allowing 10-foot lanes for moving vehicles on all types of streets wherever possible.

One point is seldom mentioned: the provision for pedestrians on suburban highways usually constructed without sidewalks. Even though

separate regional trails are provided for those who still care to exercise by using their legs, a footpath along regional thoroughfares would seem to be a reasonable requirement for pedestrian safety and comfort. Pedestrian safety in congested districts may be promoted by planning for street car loading zones. The best arrangement is found to consist of raised platforms as in Washington, D. C. These loading platforms or zones are now largely matters of street traffic regulation, but space for the purpose should be allowed in determining street widths, unless the design of the street cross-section renders them unnecessary.

An analytical study of street widths as observed in various cities would have been desirable, had time permitted field notes to be taken. A few cities had exceptionally wide streets in their original plats, as Lincoln, Neb., and Salt Lake City, or exceptionally narrow streets as in downtown Boston. Some cities have a striking lack of standardization, as in New Orleans, where twenty-four different street widths and forty types of surfacing may be found.

As already pointed out the design of minor residential streets has been largely — and wisely — related to platting control; and such enabling legislation as the State of New York city planning laws and those based on the Department of Commerce Standard City Planning Enabling Act permit latitude in the arrangement of residential districts between major thoroughfares so that novel experiments such as Radburn may not be precluded. In drawing up and adopting standards for street widths, communities should take counsel from this suggested latitude, and consider as one inter-related problem the adjustment of street widths, building setbacks, and open areas.

Unless they form some part of specially designed residential districts, alley systems are very infrequently provided in modern street plans outside the central business areas. Detroit is one of the few cities visited where alleys have been popular and well kept: they have a width of 20 feet in business districts and 18 feet in residential areas although, in the latter, 12-foot easements are being substituted in new districts. In Indianapolis 8-foot utility strips are preferred to 12-foot alleys. In Laramie all blocks have 16-foot alleys and these are popular. In Rochester alleys are considered detrimental to residential districts, but very valuable in the downtown section, where they are being added in blocks previously lacking them. The commercial areas of Sacramento have 20-foot alleys. Most cities visited, however, did not favor or promote alley systems in any part of the city, even though their relation to off-

street loading and unloading in commercial districts has not yet been thoroughly studied.

At the other end of the scale from local and service ways, are the great super-highways introduced to the country in 1924 under that name by Detroit and incorporated in regional schemes elsewhere in varying forms. The super-highway, or very wide thoroughfare, has seemed to sweep all before it until the recent pronouncements of the Cleveland Highway Research Bureau resulting from regional studies around Cleveland, that a highway with more than four lanes cannot be justified, since if more capacity is needed, greater property value increases will result from two separate highways, which also will discharge their loads at separate points in the city. Thus even if segregated channels for different types of use reduce units of cross-section on wide roads to four lanes, viewed from this Cleveland statement, the whole matter becomes a complicated question of route location and spacing rather than of width in relation to roadway use.

The great super-highways of Detroit provide 204-foot rights of way, subdivided as shown on the accompanying illustration. The rights of way for main arteries of the Chicago Region are 200 feet. Sheridan Drive in the "greater motorways system" of the Buffalo Region is 180 feet wide for several miles, with a 60-foot center planting strip separating two 30-foot concrete roadways; no part of this system will be paved less than 40-feet wide. The Regional Planning Federation of the Philadelphia Tri-State District has suggested 124, 168, 240, and 250 feet in its cross-sections for trunk highways.* In the Detroit and Philadelphia plans, local traffic is separated from long-distance, but the express lanes carry mixed passenger car and truck traffic.

The delays and dangers at the intersection of two heavily traveled ways, or the interference with the speed of through traffic caused by many crossings at grade with local streets, have driven home the desirability of relieving traffic congestion by means of street grade separation. Traffic experts agree that only by grade separations can metropolitan congestion be really relieved. One of the earliest and most scientific studies of this subject was made by the late Mr. W. D. Hudson for the major traffic street plan of Los Angeles, published as an Appendix to that report in 1924 and summarized in *City Planning*, January, 1926. The grade separation studies in the Providence thoroughfare plan are also of particular interest, and also, of course, the whole system proposed as an

* See Federation report "By-pass Highways for Traffic Relief."

integral part of the Detroit super-highways. The Cook County (Ill.) Highway Department has designed a typical grade separation scheme for two highways crossing in built-up territory, intending later to build a demonstration structure.

There are very few constructed examples as yet of street grade separations except in the park system of Westchester County and in Lincoln Park, Chicago,* which follow the traditions established in Central Park in 1858, where the users of pleasure roads were spared the confusion of crossing business traffic which was confined to the sunken "transverse roads." Grade separations similar to those in Lincoln Park are proposed in the new lakefront development of the Chicago South Parks. For number, variety, and successful design, the Westchester grade separations are the most fertile subject for study in relation to suburban street systems.

For complicated grade separations, there are recent proposals for the great New Jersey boulevards serving as feeders to the Holland Tunnel. When "Route 25" is fully developed it will provide a motorway without grade crossings from Elizabeth, N. J., all the way to the Tunnel. Studies for grade-separated motorways on Long Island have been considered in the work of the Regional Plan of New York, and by the Long Island State Park Commission. The Long Island motor parkway, a private toll road, has existed for many years. The Grand Boulevard† in the Borough of Queens (New York) already offers an extensive series of grade separations at intersecting streets, nine of which were depressed under and one carried over the Boulevard. The pioneer example of a grade separation so considerable as to make it almost rank as a two-level street is the Park Avenue-Grand Central viaduct at 42nd street, New York.

Although proposals for multi-level streets of all degrees of fancifulness have been made and pictured especially for New York, it is in Chicago that we can really grasp their tremendous advantages. Michigan Avenue, and Wacker Drive with trucking below and above a magnificent thoroughfare along the river, are monuments of achievement. Construction has now begun on the West Side two-level marginal thoroughfare for the City of New York, long discussed, but only recently settled as to details. Duluth has proposed but not constructed a two-level street

* Westchester County separations will be found described in an article by L. G. Holleran in *American City*, Mar., 1927, and the Lincoln Park separations in Chicago in *Concrete Highways*, Jan., 1928. The Wayne County Road Commissioners 22nd Annual Report describes the type of proposed separations for the Detroit region in some detail.

† Described in *American City*, Aug., 1928.

along a portion of its dock frontage. Boston has not yet secured a proposed elevated highway along the waterfront, utilizing the structure now carrying Atlantic Avenue elevated (rapid transit) trains.

The studies of the Chicago Plan Commission, in connection with stupendous two-level proposals just announced, have revealed how very few beside those in Chicago are available for observation anywhere in this country. This new Chicago project includes an elevated fast-traffic street around the loop and elevated diagonals shooting off into outlying territory without a single road crossing at grade.

There are also very few vehicular tunnels to be studied in the United States. The Market Street Subway in San Francisco is an earlier example, the first of its kind on the Pacific Coast. The Beaucatcher vehicular tunnel financed by a city-county bond issue to open up a residential valley to the east of Asheville, N. C., is linked to the major thoroughfare plan. The Holland Tunnel connecting New York and New Jersey is the greatest enterprise of the kind in operation. An international vehicular tunnel between Windsor and Detroit has been begun, and the approaches on the Detroit side studied by the City Plan Commission in relation to the major street plan. A vehicular tunnel has been proposed to connect East Boston with the central business district of Boston. Except for pedestrian tunnels for school children in Los Angeles, Detroit, Milwaukee, and a few other cities, there appear to be very few footbridges or tunnels for pedestrian use which are successful or popular in the United States.

There has been great activity in recent years in constructing great bridge links in major street systems, although in some cases, as in Springfield, Mass., a fine new bridge has not been well fitted to the city plan. These great bridges are too numerous to recount, but a few outstanding examples may be seen in the Delaware River Bridge connecting Philadelphia and Camden, the International Peace Bridge at the Niagara Frontier, the Arlington Memorial Bridge in Washington, and the stupendous Fort Washington–Fort Lee Bridge across the Hudson now well under way.

Traffic Regulation Related to Planning

The relief of street traffic congestion has become one of the most acute problems of urban life, — one constantly discussed in the press and brought home to almost every citizen by some daily experience. Predictions of future street traffic are staggering. City and regional plan-

ning may provide additional street facilities, but frequently time and large investments of municipal funds are required before such improvements are realized. The regulation or handling of traffic with a view to securing more efficient use of existing facilities is an immediate step which should go hand in hand with plans for physical improvements.

The subjects of the street traffic survey and traffic regulations, both to secure freer use of the streets and to promote pedestrian safety, have been thoroughly covered in the writings and reports by Dr. Miller McClintock, of the Erskine Bureau of Harvard University, and others engaged in street traffic studies; and anything more than brief notes on observed experiences in relating traffic regulation and planning would be quite beyond the scope of this present book. Much more study and research are needed to establish the desirable relations between street planning and traffic regulation.

In the series of cities, following Los Angeles, for which the Erskine Bureau has made traffic studies and installed improved traffic regulations, we found the most striking object lessons. Some years ago Los Angeles claimed the greatest traffic congestion of any city in the United States due to the enormous growth of automobile registration and the all-year-round use of the automobile. The McClintock traffic regulations and major street plan improvements have combined to effect immense relief, in spite of the fact that there is one motor vehicle to 2.3 persons in the Los Angeles Region. The work of the San Francisco Traffic Survey Committee has included both comprehensive McClintock traffic studies (analyzing the social, economic, and administrative aspects of traffic congestion and relief measures) and comprehensive Bartholomew street plan studies, using the traffic facts thus made available. The regulative measures in the form of traffic signs and signals, roadway markers, paint markings, and directional signs, constantly supervised by a permanent traffic engineering agency, are the physical manifestations, which (with more thorough and scientific enforcement of law through the Police Department) have made the use of existing street facilities in San Francisco far more effective than before.

The Chicago traffic studies have produced the most talked-of result through the no-parking-in-the-Loop regulation, discussed later. The Chicago Regional Planning Association sent a copy of this McClintock traffic report to all but the smallest cities in the State of Illinois, and followed this up with copies of the Hoover Model Municipal Traffic Ordinance, with gratifying results. In Boston, the Erskine Bureau traffic

studies serve both as the justification for new traffic regulations and as data for the major thoroughfare plan approaching completion by the City Planning Board and its advisers. Boston is particularly an example of the limitations of traffic regulation where physical plan improvements are absolutely requisite to the relief of certain congested points, such as Governor Square, where only grade separation can solve the problem. In New Orleans the Erskine Bureau has developed traffic studies in close relation to the city plan. Erskine Bureau studies have followed the major street plans in Providence, and also in Knoxville where a system of electric traffic control was installed to speed up vehicular traffic and offer better protection to pedestrians.

All traffic studies have revealed the need for specific facts on which to base the choice of location, spacing, and timing of traffic signals, which if inappropriately used, may increase rather than decrease congestion and danger; and the relation of traffic signals to local considerations of comprehensive street planning is far closer than the average citizen might guess.*

Schenectady offers an example of the very close coördination of street and traffic planning. In Pittsburgh, there is voluntary coöperation with the city planning commission of a special traffic bureau, which makes continuing traffic studies (following the traffic survey of the central business district in 1927) and is reënforcing the intended effect of street improvements by a progressive system of traffic control.† In Des Moines, traffic control is largely based on the major street plan studies. In Kansas City, Mo., the city plan engineer is a member of the Traffic Committee of the Safety Council, and there is also such an interlocking membership in Memphis. Close coördination of traffic regulation and planning was also noted in Denver, Oklahoma City, Detroit, St. Paul, Minneapolis, Altoona, Pa., New Haven, Conn., Providence, R. I., and New Bedford and Springfield, Mass.

Some brief notes on street traffic studies made as parts of studies for comprehensive plans by city planning consultants, and also special traffic studies, will be found in the Appendix.

It will be noted that a considerable number of city planning commissions, as in Dayton, Columbus, St. Paul, and Wichita, make annual or periodic traffic counts to check up traffic flow and movements in relation

* See the article in the *American Mercury*, Feb., 1929, "Are we Solving the Traffic Problem," which, however, does not present a fair picture of the technical contribution.

† See the comment on page 216.

to anticipated results of street plan improvements. In very large cities such periodic counts would naturally be made by a special traffic bureau as in Pittsburgh, which, like San Francisco and Chicago, illustrates the value of the continuing traffic agency. For Detroit the Rapid Transit Commission makes traffic analyses of which the most recent has been published as "Vehicular Traffic in 1928." It will also be noted that traffic studies have been made in close connection with other transit studies, as in Baltimore, Salt Lake City, Greensboro, N. C., and Norfolk, Va., because of the unity of the problem of private vehicles — parked and moving — and surface cars in congested central districts.

The designation of certain major thoroughfares as "through streets" or "boulevard stop" streets was reported an effective means of speeding up traffic and reducing accidents in a number of cities, including Chicago, Boston, Chattanooga and Memphis, Kansas City, Mo., Portland, Ore., and Asheville, N. C. In the last-named city, traffic accidents are said to have been reduced 80 per cent. A number of cities commented on the successful use of progressive traffic control signals, and only two larger cities commented on complete absence of any downtown signal lights, Kansas City and also Norfolk, where the transit and traffic recommendations were worked out on the basis of control only by police officers.

The entire efficiency of use of the street system, both as to convenience and safety at street corners,* may be improved by proper marking of streets with clear and readable street name signs, and by proper street naming and house numbering. Several city planning commissions have been concerned in revising street names and house number systems, as Atlanta, in 1926, and also Evansville.

The segregation of traffic by marking out light and heavy traffic routes, or the detouring of through traffic by effective signs, works in combination with physical plans for fast-traffic routes and by-pass highways to relieve central congestion.

The most effective and reasonable relief for central congestion has been obtained by the enforcement of limited-parking or no-parking regulations. Although no-parking in the Loop District of Chicago, in accordance with the McClintock plan of traffic regulations, caused a storm of protest from merchants when put into effect early in 1928, it was found after the ninety-days' trial insisted on by the Street Traffic Committee of the Association of Commerce that opposition had subsided; and the regulation is still in force. The relief has been tremendous and a greater

* Cf. discussion of the vision clearance regulations of zoning ordinances, in Chapter XI.

amount of traffic is handled with freer movement. In Pittsburgh, recent prohibitive regulations have eliminated parking in about 50 per cent of the downtown area.

The use of limited street space for day storage of automobiles is clearly unreasonable, and when street space is so limited that traffic cannot circulate, even limited parking may not be justified. As suggested in the next chapter, mass transportation is a leading factor in lessening central traffic congestion where one public vehicle is substituted for several private ones. A sorry spectacle is presented in cities which have expended public funds for street widenings only to have the benefits of these considerably decreased by failure to enforce parking regulations, as in Atlanta where the abuses of double line parking are patent.

Much has been written regarding automobile parking in business districts, including studies by the United States Department of Commerce and the Chamber of Commerce of the United States. Undoubtedly central congestion and limited parking have had a decentralizing effect on certain kinds of business. If adequate mass transportation is provided and free movement of traffic secured in central areas, people will not be prevented from buying the kind of merchandize that only central shopping districts can offer. From the point of view of municipal economy the decentralization of small shopping is a desirable and healthy tendency, encouraged constructively by proper zoning and platting regulations, as well as negatively by parking prohibitions and the even more potent automatic effects of congestion. The fact appears that many cars assumed to be those of shoppers are really those of mercantile and commercial employees who use the streets for day-storage purposes, an uneconomic and unsocial proceeding in the whole scheme of urban life.

Structural Provision for Standing Automobiles

If standing automobiles are to be kept off the streets, adequate provision must be made for storing them either in open-air parking areas, in public garages, or in garages constructed as part of office buildings.

A few cities maintain public open-air parking areas, among them Akron, Baltimore, Fort Wayne, Kenosha, Lansing, Providence, New Bedford, Springfield, Mass., and Lafayette, Ind. There are many private open-air parking spaces reported, some of them, as in Cleveland, found more profitable than old buildings on the land. In Madison, Wis., private open areas have failed and are not used, but there parking is permitted freely in the streets. In Evansville a parking plaza has been

proposed by the city planning commission and is partially assured. The magnificent riverfront scheme of St. Louis includes a great area for parking. Parking at transit terminals is provided for by transit companies in Philadelphia and Boston. In Pittsburgh many of the department stores maintain open-air parking spaces for their customers.

Parking garages for customers' use are maintained by department stores in Boston and New York. Most parking garages, however, are independent enterprises, and their construction and use are parallel to the strictness of limitations on street parking. In Chicago, garage capacity increased from 8200 cars in 1926 to about 14,000 in May, 1928, with garages having an additional capacity of 2300 cars completed before the close of 1928.*

In Cleveland a temporary municipally-owned building is used for parking purposes most of the year, when not needed for exhibition purposes, and a similar building in Wichita is leased to a private operator. The only municipal parking garage reported during the field study as actually authorized was one in St. Paul under the new street widening project, which will provide for 500 cars, with two hours free parking followed by double hourly rates, in order not to interfere with private enterprise. In Akron a new privately-owned garage near the heart of the city has open-air parking, and two floors underground for covered parking, facilitated by a sloping site.

Some privately-owned ramp garages have direct connections with a theater, as in Akron, and with related office buildings, as in Detroit. The ramp garage is recommended in traffic studies as the complement to no-parking, and its success is seen to be in direct relation to the degree of central traffic congestion and the strictness with which parking regulations are enforced. As urban density increases there is little doubt that ramp garages at transit terminals will relieve central districts both of superfluous traffic and of the necessity of costly storage structures.

The combination in office buildings of automobile storage facilities is the most recent attempt to provide garaging service for business men. There are as yet so few of these in the country that the somewhat fragmentary notes collected during the field study are given in full in the Appendix.

It is significant that in Los Angeles, undoubtedly largely as a result of traffic and planning studies, few class-A buildings have been erected which do not contain storage facilities for automobiles. Detroit and

* Information from Mr. Robert H. Nau, Chicago Association of Commerce.

Chicago offer striking examples in bank and office buildings, and Akron showed the only department store with internal storage facilities. If automobile storage be separated from repair work there would seem to be no insuperable obstacles in zoning which would render impracticable the combination of storage facilities with office buildings, if fireproofing requirements are properly met.

The question of structural provision for off-street loading, as a necessary measure of traffic relief, is now receiving wide attention. In the zoning ordinance of Denver, this provision was made, and its operation has been most successful. Pittsburgh is considering legal requirements for off-street loading. Traffic studies point to the importance not only of prohibiting street and sidewalk obstructions but of making mandatory (in building codes or zoning ordinances) loading bays or internal shipping facilities, within the building area of commercial districts, such as have automatically come about in parts of New York. Off-street parking for the residents of large apartment blocks is an essentially similar problem. It is equally important that on the lot belonging to an apartment there should be arrangements for keeping tenants' cars off the street, not only by preserving a balance between lot area and building volume, but also by specifying what proportion of space is to be allowed to each resident, as in the recent zoning ordinances for Bronxville and Hastings, N. Y., mentioned in Chapter XI. The Town of Brookline, Mass., offers a lamentable example of the lack of parking space for the cars of tenants of apartment buildings on narrow streets, which by standing cars are now being rendered dangerous for moving vehicles.

The city plan can join with efficient municipal administration in requiring a place for standing trucks, as well as passenger vehicles, and in keeping the streets free for their legitimate use, — the circulation of traffic.

Observed Effects of Street Plan Improvements

The question naturally arises as to the effect which street plan improvements have had in relieving traffic congestion. Comments on this point were made in many of the cities visited where we observed progress in carrying out the major street plan. Traffic movements have been greatly facilitated in St. Paul, Wichita, Oklahoma City, and Omaha. The Henley Street-Broadway project in Knoxville and the Broadway extension in Chattanooga are causing immense improvements in downtown traffic. In Johnstown, Pa., the new bridges especially have helped

to relieve traffic congestion. The widenings made in Hartford are already proving successful relief measures, and similarly widenings in New Haven have helped the traffic situation although they have not provided all the relief anticipated because of the greater amount of traffic attracted. In Pittsburgh we found that street improvements have not yet relieved downtown congestion, even with no-parking regulations, because of topographical difficulties, lack of by-pass routes, and the fact that central improvements have lagged behind those feeding traffic into the Triangle. No other city confirmed the opinion of the Cleveland Highway Research Bureau that street widenings have increased traffic and accident hazards.

From observations made during the field study it would appear that when improvements in the street system have been part of well considered comprehensive city plans, as in St. Louis or Chicago, the relief effected is very great, but that unrelated street widenings may well produce added congestion and confusion.

The favorable effects of street plan improvements, especially street widenings, on property values have frequently been used as arguments for undertaking planning projects. In one city the opinion was expressed that such tangible economic data as have been circulated concern largely the abutting private property and that the increased welfare of the city as a whole is so paramount that this type of economic argument should not be put forward. It should be remembered, however, that increases in the values of abutting private property mean increased revenues to the municipality, which may in turn be used for all kinds of necessary public improvements, so that there is a very tangible general economic benefit worth stating and entirely valid.

The street improvements in accordance with the Chicago Plan furnish the most spectacular figures of improved property values. Of all these, the Michigan Avenue improvement, analyzed in "Chicago Plan Progress," 1927, is typical. The improvement cost $16,000,000; by increasing property values more than $100,000,000 it has paid for itself six times over. Owners who paid special assessments have received back in the increased value of their property $12 for every $1 which they paid toward the improvement; and, when taxes have been adjusted to the new values, the city can get an additional revenue of $4,000,000 annually, a sum equal in two years' time to the public share of the cost, — all this in addition to saving the time and promoting the convenience of the three million residents of Chicago.

BEFORE

Courtesy of Kessler Plan Association, Dallas

AFTER

PACIFIC AVENUE IMPROVEMENT, DALLAS

$15,000,000 of building and real estate development came in this district following the removal of tracks from Pacific Avenue and related improvements

In the widening of Carnegie Avenue, Cleveland, property values doubled. In Indianapolis, real estate operators report that they can sell property along streets required to be 90 feet wide before other property, and for a price more than high enough to pay the extra cost of dedicated streets.

In St. Louis, the street widening projects have increased abutting property values. The Olive Street widening, completed in 1928, has already increased property values about seven times and the volume of traffic has increased about 700 per cent. In Providence, there has been a great increase in values resulting from street widenings; and, as in St. Louis, the benefits to the city as a whole have been great. In Dallas, street improvements in accordance with the Kessler Plan have been profitable to property owners and to the city; some of these increases in values are in the central district and some along the Kessler Boulevard, where the tremendous improvement in type of development has been an object lesson. Similar improvements in types of residential development have been noted in Chattanooga street plan accomplishments; and in the Broadway extension, already mentioned, property values have increased from a very small amount to $500 per front foot.

Officials in St. Louis, Houston, and New Haven made comments on the spreading of values through street plan improvements. In Grand Rapids, the extension of Shawmut Boulevard converted a dump into a desirable residential section. In many other cities we found interesting specific examples of increases of property values due to completed street plan projects: some of these are noted in the Appendix.

Typical of the beneficial results in the revision of street systems in undeveloped areas are the economies effected by the work of the National Capital Park and Planning Commission in the District of Columbia. The forty-four changes approved by the commission up to June 30, 1928, are estimated to have saved in construction costs nearly $500,000; and the total program of revisions is expected to save initial costs of over $3,000,000 and an annual maintenance cost of over $300,000, not to mention additional return in taxes from the private land not used for streets.*

There has been an immeasurable enhancement of the visual appearance of many cities effected by street plan improvements, which have been followed by the erection of better types of buildings. A striking economic argument for a major street plan may be found in Duluth

*See paper by Col. U. S. Grant, 3rd, "City and Regional Planning in the District of Columbia," before Ohio State Conference on City Planning, 1928.

where an unwise and expensive project known as the "Point of Rocks Improvement" was defeated because of opposition aroused by the planning commission and Taxpayers League on the ground that the major street plan showed it to be unnecessary. One side of the picture is presented by New Orleans in the statement that money expended to overcome faults in street design would have been saved had city planning been developed earlier; while the other side of the picture is shown in Detroit where the major street plan has brought about a substantial reduction in paving costs because the city engineer knows which streets may be paved and which streets should be avoided during pending widenings.

An expected saving to the public is now being predicted as a justification of the Middleport-Buffalo highway which will reduce the cost of hauling food from the fruit belt of the region to the citizens of Buffalo. Indeed, in the eyes of the citizen and the housewife, the most effective economic argument of all will be figures — when they can be found — as to reduction of food costs due to improved movement of truck traffic, and to other general efficiencies and economies secured through comprehensive planning.

CHAPTER XIII

RAPID TRANSIT AND MASS TRANSPORTATION

Transit in the Comprehensive Plan

THERE are only three out of the one hundred and twenty cities visited in which there is no form of local mass transportation, these three all being cities with less than 20,000 inhabitants. In spite of the tremendously increased use of the private automobile as a means of getting about, and in spite of the financial difficulties which have beset street railroad companies as a result of this change in the riding habit, mass transportation must be recognized as an essential element of urban life which has to be planned for and for which provision must be assured by public coöperation.

The interacting effects of street traffic and transit bring the whole problem into the realm of comprehensive city planning and we find very few of the comprehensive plan reports submitted within the last ten years which do not contain some analysis of local transportation and some recommendations for promoting public convenience in being transported. In addition, a large number of special transit studies have been made, both for utility companies and by order of municipal authorities, directly or through transit commissions. Regional considerations are so fundamental in solving problems of mass transportation that we find inevitably a number of the important metropolitan regions developing transit studies of a regional character.

Among the larger cities for which transit studies have been prepared as parts of or in connection with comprehensive plans are Des Moines, Duluth, Knoxville and Memphis, Tenn., Springfield, Mass., Schenectady, N. Y., Evansville, Ind., Norfolk, Va., Pittsburgh, St. Louis, Dayton, Toledo, and Washington, D. C.; and among the smaller cities Asheville and Durham, N. C., Kenosha, Wis., and Ponca City, Okla. At the present time, transit studies are going forward in the comprehensive planning work for Houston, Oklahoma City, New Orleans, and Sacramento.

In Toledo, the whole transit system has been reorganized and consolidated in the spirit of the comprehensive plan report of 1924, even if all

details have not been followed, so that there is coördination of street car lines with busses and bus feeder lines. In Norfolk a transit commission, on which the city planning commission was represented, made transit studies and recommendations subsequent to the preparation of Norfolk's comprehensive plan, and practically all the commission's recommendations have been carried out. In Springfield, Mass., also subsequent to the city plan, the planning commission coöperated in a study with recommendations to bring about an up-to-date adjustment of transit with city growth. Dayton has just had completed more exhaustive special transit studies than those of its comprehensive plan, paid for jointly by the street railroad companies and the city. The Cincinnati transit situation has also been the subject of recent special study with a view to determining the wisest course of community action in regard to an uncompleted rapid transit subway. In Milwaukee recent transit studies by outside experts are not considered harmonious with the city planning commission's studies on other features of the city plan. In Omaha a transit and traffic survey just begun under the guidance of the city planning commission and city council, but paid for by the street railroad company, is developing into a comprehensive study.

In St. Louis the City Plan Commission studies are being utilized as a basis of ultimately rebuilding the entire surface car system of tracks, making use of the widened major streets as these become available, and alternating street car streets with major thoroughfares. The Beeler special studies of 1924 for Atlanta resulted in the construction, with the support of the street railroad company, of two viaducts across the steam railroads in the central district, which have caused great relief to traffic, and harmonize with early city planning studies made for the city.

Practically all the very large cities — New York, Chicago, Philadelphia, Detroit, Los Angeles, Cleveland, St. Louis, Boston, Pittsburgh, San Francisco, Washington, and Newark — have had a series of special transit studies occasioned by the requirements of a population living at an increasing distance from places of work.

Of great cities New York has had the most extensive regional transit studies both by the Regional Plan of New York and by the special transit commissions, North Jersey, Westchester County, and most recently the Port Authority's Suburban Transit Engineering Board. Regional transit studies also for Detroit and Los Angeles are of special interest; and the Niagara Frontier Regional Planning Commission has been tentatively studying a future regional rapid transit scheme, and also preparing un-

officially for the Public Service Commission a coördinated bus system plan for the entire region.

Systems of Mass Transportation

It is obviously impossible in the brief compass of this chapter, as well as beyond the capabilities of the authors, to analyze comprehensive systems of transit. Moreover this has already been done in recent technical studies available for reference.* We shall merely record here some of the facts observed during the field study, in their particular relation to city planning.

Only three cities in the United States, New York, Philadelphia, and Boston, contain in their systems of mass transportation all the four elements — subway, elevated railroad, surface cars, and busses — found in various combinations elsewhere. The systems of Boston and Philadelphia are taking care of a heavy volume of passenger traffic with a considerable degree of efficiency, but the enormous size of the New York commuting region and the overwhelming number of passengers to be carried have made the situation there little short of a crisis.

In Chicago, elevated railroads, street railroads, and busses make up the system, although recommendations for Loop district subways have long been put forward and discussed, in the course of a long series of transit reports begun as early as 1902.

In Milwaukee, a surface-car subway about eight blocks long is under construction in conformity with the recent transit plan, and in Rochester a subway in the bed of the old Erie canal is in process of further development. In a number of cities with topographical obstacles such as San Francisco and Providence (where a comprehensive subway system has been contemplated), there are, of course, surface car tunnels through hills, which expedite transit movements.

One is struck by the relatively very small number of American cities which as yet have any form of *rapid* transit, and further at the long period of discussion which has still failed to produce any means of rapid transit in Detroit, Los Angeles, Cleveland, St. Louis, Pittsburgh, San Francisco, and Cincinnati. The enormous cost of constructing subways, the damage to property anticipated from the construction of elevated lines, the uncertainty of operating costs and the rate of fares which must be charged,

* By J. R. Bibbins and by the Beeler Organization, and in the Kelker-De Leuw Los Angeles report and C. E. Smith's for St. Louis.

differences of opinion as to routes, or lack of public confidence, have acted to prevent any final decision. In Detroit the transit system plans of the Rapid Transit Commission (which has joined with the Detroit City Plan Commission in evolving a master plan of major thoroughfares) have so far failed to receive authorization from the people.* In Cleveland, the bond issue submitted as a result of a series of studies was also rejected by the voters. No action on the recent comprehensive transit plan for Los Angeles — comprising a unified system of rapid transit, interurban lines, street cars and busses — has been taken.

In Pittsburgh, although a $6,000,000 bond issue was authorized in 1921, and although a City Transit Commission has the advantage of various special studies, action is blocked by the failure of the referendum on district assessment without which a subway cannot be adequately financed. It is hoped that if the Federated City project succeeds, adequate powers for financing a transit system may be secured. In Cincinnati, where the city has already invested $6,000,000 in an unfinished subway, the public does not seem to be ready to authorize the additional $10,000,000 needed before the original investment may become useful. In St. Louis additional special studies are required before an acceptable solution may be reached, which appears hopeful because of the fact that the chairman of the city planning commission is also chairman of the rapid transit commission.

In all the discussions of economic effects of rapid transit, the reports on Chicago have brought out especially the relative merits and defects of subway and elevated lines, the consensus of opinion there appearing to be that elevated roads for outlying areas can be made reasonably unobjectionable by good esthetic design, as in parts of the Boston (Forest Hills) and New York (Queens Boulevard) systems; and that subways may be confined to congested central areas. The plans of Detroit look comprehensively into the future by designing special super-highways, already mentioned, which can take care of transit in the middle strip as outlying territory develops.

About two-thirds of the cities visited transport the public by means of a combination of street railroads and busses, about one-half of these having systems under one management and the other half having two or more separate managements; less than twenty cities have only street railroads, while five cities have only busses. Boulder, Colo., Brunswick,

* The revised project for a rapid transit system for Detroit is embodied in the joint Report of the Street Railway Commission and the Rapid Transit Commission, Feb. 9, 1929.

Ga., and Laramie, Wyo., alone find it unnecessary to have either street railroads or busses.

A considerable service can be rendered to the street railroad companies and the public by an analysis of street car and bus routings in relation to street traffic and other planning factors, and by recommended adjustment of these on a comprehensive basis. Recommendations for the improvement of street car routings made in comprehensive city plan reports, as well as in special transit studies, have had beneficial results in a considerable number of cities, for instance, in Springfield, Mass., Toledo, and St. Louis.

Important recommendations, too, have dealt with the relation of bus lines to street railroads. This whole question is one of the most interesting phases of transit study, since the problem is present in the greater number of American cities. For efficiency of transit, street cars and busses must each be used for the purpose they best serve and, to avoid wasteful duplication, both must be correlated into a unified system. In many cities busses are used both as feeders and as supplementary lines, as, for example, in New Orleans, Indianapolis, Portland, Ore., Roanoke, Va., or Syracuse, N. Y. In several cities, as Atlanta, Ga., Grand Rapids, Mich., New Bedford, Mass., and Salt Lake City, Utah, the bus lines act almost entirely as feeders; while in Greensboro, N. C., Louisville Ky., New Haven, Conn., Oklahoma City, Richmond, Va., and Savannah, Ga., bus lines are largely supplementary to street railroad service. In Louisville, the experiment has been tried of operating express cars on certain streets, with bus lines taking care of local traffic between stops; and the experiment has proved successful.

The question naturally arises as to how far street railroad tracks have been abandoned and motor busses substituted. The notes taken in the course of the field study show clearly that in the greater number of cities, street railroads are being kept in central districts and that the normal relation between the street railroad and the bus is a complementary one. It is significant, however, that in the recent comprehensive city plan report for White Plains (a residential suburb of New York) there is a strong recommendation to remove trolleys and substitute busses. In Paterson, N. J., practically all street railroads have been abandoned in favor of busses; in Lincoln, Neb., and Topeka, Kan., this tendency has been very noticeable, for whenever the street railroad company is asked to share in street improvement, tracks are abandoned and bus operations initiated. In San Diego, Cal., busses have replaced street cars

in thinly populated districts; in Camden, N. J., street cars have been discarded on all except main arteries; in Evansville, Ind., interurban railway lines are giving way to interurban bus lines. In Houston, Tex., it is anticipated that all extensions will probably be bus lines.

Another interesting question is the extent to which rapid transit lines and street railroads have been supplemented by commuter railroad service. It was found that in Chicago, Harrisburg, Philadelphia, Pittsburgh, Portland, Ore., Spokane, Richmond, Va., Wichita, Kan., Boston, and communities in the region of New York and New Jersey, steam railroads are depended upon to a considerable extent for commuting purposes; and that steam suburban service is proposed also for the Cleveland region.

Those cities having a unified management of transit systems naturally have to a considerable extent coördinated transit terminals; and cooperative arrangements for union interurban bus terminals are common. The field study would seem to indicate that there is little coördination between transit and railroad terminals to be found as yet in American cities.

The complicated problems of coöperation involved in securing a thoroughly coördinated system of public transportation appear when we consider the number of studies made in comprehensive plan reports to effect this purpose, and the relatively small amount yet accomplished.

Mass Transportation and Traffic Congestion

Observation in a considerable number of cities studied by transit experts shows that "the story of the movement of building development, of increasing density of surface traffic and of the continually compounding trend of mass transportation is much the same tale when told of any large city. Local conditions may differ but the general causes and effects are the same." * In this Detroit report just quoted, figures are given which show a common average of about 80 per cent of the passengers in the afternoon peak hour carried by collective facilities (street car and motor bus) as against 20 per cent by automobiles and taxicabs. It is this 20 per cent who contribute most to traffic congestion.

The subject of congestion on central district streets is one in which street planning, traffic regulation, street car routing, and requirements of retail business are inextricably bound up. The Erskine Bureau (McClintock) traffic surveys all include an analysis of the contribution of

* Detroit Rapid Transit Commission report, "The Relation of Individual to Collective Transportation," 1928.

street cars and busses to traffic congestion, and similarly numerous transit studies analyze the retarding effect of unnecessary parking and use of the streets by private vehicles on conveyances for mass transportation.

All efforts of traffic and transit experts to relieve street congestion in central shopping districts have to be considered in relation to the effects on retail business, but since these have already been made the subject of study * by the United States Bureau of Foreign and Domestic Commerce and more recently in the reports of the Erskine Bureau of Harvard, no attempt has been made to cover this subject in the present field study. One bit of experience, however, is especially worth repeating. In Houston, Tex., the experiment was tried of taking street cars off the main business street without supplying any busses to take their place, since transportation was already given on parallel streets. The result of eight years' experience has been improvement of business and conviction on the part of merchants that the removal of street cars has been thoroughly desirable.

Central congestion is undoubtedly bringing about decentralization of retail trade and creation of new shopping centers. This tendency was very generally noted, and was especially commented upon in Detroit and Chicago, as well as in Norfolk, Va., where these tendencies were analyzed in the Traffic Commission report just referred to.

When, however, the business or shopping must be done in the central areas, the great advantages of using public conveyances are being generally emphasized. The City Planning Board of St. Paul joined in a campaign to urge citizens to use public transportation facilities to relieve congested streets. The Detroit Rapid Transit Commission has pointed out on the additional basis of greater cheapness that "it would clearly be better for the motorist, and incalculably better for the traffic situation in any city, if the city worker living in the distant suburbs created in large part by the automobile, were to garage his car for the day at the rail terminus and from there use the differential in cost within the rail territory to travel by rail to his destination."

Since there is such general recognition of the desirability of keeping unnecessary private vehicles out of congested central business districts, and instead to attract riders to public means of conveyance, we are surprised to find that in very few cities visited was there any provision for parking automobiles at transit terminals. Philadelphia offers the outstanding example of the "Park your car and ride in the subway" system. There, parking facilities provided at outer transit terminals are extensively

* Cf. the study in the report of the Norfolk (Va.) Traffic Commission, 1926.

used, and the "parking-riding" plan has achieved a considerable popularity, especially since complicated central district traffic regulations act as a strong deterrent to automobile shopping. Terminal taxicabs under the same management as transit lines complete a door-to-office system of public transportation. In Boston, the system is beginning to be adopted in connection with new terminals on transit extensions. Undoubtedly there must be other examples of the attraction of passengers to rapid transit lines by offering parking facilities, but the field study did not reveal them. In a few cities, for instance in Salt Lake City or Spokane, parking facilities are provided at interurban bus or electric railroad terminals.

Technically competent authorities on mass transportation agree that people can be influenced to ride in public conveyances only if speed be offered as an inducement. As Mr. J. R. Bibbins, among others, has frequently pointed out, a generation that compares mass movement with the customary movement of private automobiles will not be satisfied with the slower movement of cars and busses under ordinary conditions of city traffic. The recent Beeler study published in the *Electric Railway Journal*, based on traffic returns for ten years in four rapid transit cities and five cities without rapid transit, showed that while in rapid transit cities surface traffic by trolley and bus has not decreased (has in some cases even increased), in cities without rapid transit there has been a decrease in combined bus and surface-car travel. In the report of the Detroit Rapid Transit Commission already referred to are graphs and figures which confirm this conclusion. In eight growing cities (without rapid transit) having a population from 250,000 to 1,000,000, records covering the period 1915–1925 show that there was a general reduction in the collective riding habit. Undoubtedly, too, it is pointed out, extension of collective transportation facilities into lightly developed outer areas of cities has been reduced by the rapidly increasing use of private automobiles and the shorter time consumed in covering greater distances.

The two forces that operate simultaneously to draw patronage for collective transportation facilities are speed on the one hand, secured by such devices as the proposed superhighway-transit plan of Detroit or older forms of subway or elevated rapid transit lines, and on the other hand the automatic check offered by traffic congestion to futher use of private conveyances in congested districts.

© Fairchild Aerial Survey, Inc.

Outlying Rapid Transit Area of New York System, Brooklyn

© Courtesy of Fairchild Aerial Survey, Inc.

Undeveloped North Jersey Area, within same radius, for which rapid transit proposed

EFFECT OF RAPID TRANSIT ON DEVELOPMENT, NEW YORK REGION

Transit Facilities and Suburban Growth

The Regional Plan of New York and the special transit commissions which have been reporting on the complicated problems of the New York region have had an unparalleled opportunity to study the relation between suburban growth and the provision of transit facilities. Aërial photographs shown in their reports demonstrate strikingly the effect of rapid transit lines in building up, for instance, an outlying Brooklyn suburb, while an area in New Jersey no more distant is still largely undeveloped. But if all the New York region is to be solidly built up, the estimates of future passenger traffic on transit lines is too staggering for comprehension. To a certain extent zoning acts as a reasonable limit to anticipated population, but metropolitan pressure may cause an endless pushing out of denser areas unless some balance is consciously maintained.

Mr. Thomas Adams has pointed out certain vital effects of transit plans on city growth: "What cities lose by lack of planning could be ascertained only if it were practicable to estimate the appalling cost of obtaining adequate remedies for overcrowded traffic ways and overbuilt neighborhoods. In part these difficulties are due to the persistence of the fallacy that transit promotes decentralization. Rapid transit facilitates business concentration, which may be desirable in certain places and up to a certain point. Incidentally, and for a time, it enables people who are engaged in concentrated business to spread their homes over wider areas than would be possible without it. The very fact, however, that it enables more people to live further from their work than they could otherwise, operates in time to exaggerate the numbers who are available for a day's work in the area of concentrated business, and thus rapid transit ultimately becomes a new cause of centralized congestion of activities and travel. . . . The only way to promote decentralization is by a properly balanced distribution of both industries and population over wider areas with a lessening of the necessity of travel between the place of work and the home."

Similarly Mr. Frederick Law Olmsted has said: "While a large amount of efficient rapid transit is essential in a great city, it stands to reason that in respect to rapid transit (as in respect to all other forms of transportation) there is some limit beyond which it is economically and socially inexpedient, and some limit beyond which it is economically impossible permanently to increase the proportion of the total resources of any community (in man-hours per average day and in invested capital)

which is devoted directly and indirectly to the business of 'hauling and being hauled.' "

"The people of any community have only twenty-four hours per capita per day for all the activities of life and for all the necessary intervals of rest; and the more that limited commodity is consumed in furnishing and using transportation, the less there is for everything else. Transportation, however important, must be conceded to be almost exclusively a means to other ends and not an end in itself."

In the Kelker-De Leuw report on a rapid transit plan for Los Angeles, it is recognized that the fortunate condition of Los Angeles in having the lowest population density of any large American city is one to be sedulously preserved. Whether the introduction of rapid transit lines in Los Angeles would be conducive to the preservation of open development is seriously questioned in a striking pair of articles in the *National Municipal Review* (June and July, 1926) by Messrs. D. L. Turner of New York and C. A. Dykstra of Los Angeles, to the point "Congestion de luxe, do we want it?" It would appear that our most thoughtful experts are questioning the old basic assumptions of rapid transit and pointing out the vicious circle of congestion which it may engender.

Although land values may increase with the extension of transit lines, the whole sum of community wealth may not be increased, since the preservation of open development and social amenities may secure even a higher land value and larger total assessed valuation. As Mr. Purdy has put it: the "land value depends more upon the character of the population and the nature of the location than upon the number of population." * When communities are not overgrown, and when growth is in accordance with plan, as in Wichita, Kan., the improvement of major streets and the operation of busses on them will greatly increase land values in suburban residential districts.

In the expert studies of transit, and transit plans in our cities, it is to be hoped that transit engineering and city planning will increasingly work together, on a social basis, to secure a more balanced type of development than has arisen as a result of an opportunist transportation policy.

* "Land Values and Social Values" in *City Planning*, Oct., 1927.

CHAPTER XIV

TERMINALS: RAIL, WATER, AND AIR

Terminal Improvements in Comprehensive Plans

FACILITIES for transportation have been primary causes of the growth of cities, first as sea or river offered opportunity for shipping, and later as the extension of railroads connected little developed territory with markets and sources of supply. Private or corporate enterprise has been responsible for the development of means of long distance transportation and also largely for the terminals through which passengers and freight pass into or out of cities. It is only recently that port and terminal development in America has become a field for municipal enterprise, and that cities and states have joined with the federal government in port improvement. The independent position which rail and water carriers have hitherto occupied has inevitably caused the transportation element of the city structure to expand with little regard to other elements. There are very few comprehensive plan reports which have not found extensive readjustments desirable in the interest of the community at large, and frequently to the ultimate advantage of the individual transportation companies.

The highly specialized problems peculiar to transportation planning, and the coöperative effort and enormous expense likely to be involved in physical rearrangements of terminals, have tended to retard progress in carrying out terminal improvements in American cities, although some of the more intolerable situations are being relieved by coöperation of transportation agencies with city or regional planning authorities. Such great improvements as those undertaken in Chicago, New York, Philadelphia, Toledo, Cincinnati, Louisville, and Oklahoma City suggest the magnitude of previous confusion which has arisen from early unregulated growth of transportation lines, uncoördinated with the growth of the city, — a confusion from which a rescue is being effected only through comprehensive planning.

The latest form of long-distance transport — by air — is developing just at a time when the pressure from maladjusted rail and water termi-

nals is being widely felt; but few cities are realizing the immediate opportunity of preventing air terminals from being located without due regard to general planning considerations, and of creating airports in proper relation to the surrounding district and the city at large, to railroad and ship terminals, and to local transportation.

As we have already remarked in the preceding chapter, there is at present surprisingly little coördination between local transit and the terminals of long-distance carriers; and there is little more to be found between rail and water passenger terminals. Commercial air transport of necessity is causing perhaps the most advanced system of linking modes of transportation, as at St. Paul, where there is exchange of passengers between railroads and airplanes. Great railroads lacking central terminals such as the Baltimore and Ohio in New York are transporting passengers by bus from business district to station; and similarly air transport companies are using busses to carry passengers to and from air terminals.

The problems of handling freight in cities have also usually been treated in an unrelated fashion. Ships have unloaded cargoes at points inconvenient for transshipment or for local distribution. Private enterprises such as the Bush Terminal in Brooklyn, efficient within themselves, have only showed the economies which broader planning could bring about. The intolerable conditions of delay and high costs in the whole New York-New Jersey region gave rise to the Port of New York Authority. It is significant that this is the only official body in the country undertaking to plan comprehensively for local as well as long-distance transport of passengers and freight: although the studies of city planning consultants have dealt with transportation in connection with comprehensive plans, we know of no other special public effort except in New York to recognize the unity of the entire transportation problem. Transit commissions and port commissions have worked more or less coöperatively with city and regional planning agencies; but whether from lack of necessity for inter-dependence or from lack of vision, transportation has tended to be developed in more or less separate compartments. The success of city and regional planning as a measure of economy in other parts of the field of civic development, and in a few outstanding terminal improvements, is undoubtedly now beginning to cause planning to be recognized as an instrument for effecting a physical if not an administrative unification of the flow of passengers and goods.

The unsatisfactory conditions of terminal management in many cities

cause difficulties and delays in delivering the materials of industry and directly and indirectly increase the cost of living.

Unified control and operation of standard railroad lines within the city limits, "common user" industrial tracks and spurs, belt lines connecting docks and main railroad freight terminals, location of docks and terminals in relation to heavy trucking highways connecting with industrial districts and markets, rearrangements to prevent unnecessary haulage, industrial waterfront terminal plants, all can be made to contribute to an elimination of the present wasteful methods of receiving, distributing, and transshipping freight.

Only a few cities reported satisfactory terminal markets. In a series of articles in *The Detroit News* (1928), Boston and Philadelphia are recommended as models for consideration in connection with improvements being considered for Detroit by the Bureau of Markets in a study independent of the City Plan Commission. We are surprised to find that the new Chicago produce terminal, located by commission merchants without consulting the Chicago Plan Commission, appears to be a great disappointment, due to high overhead costs and what has proved to be an unsatisfactory location. In Cleveland a Van Sweringen market is expected to reduce greatly the cost of distributing foodstuffs. The McDougall Terminal in Duluth is owned by wholesale food merchants. The Pennsylvania Railroad is building a terminal market in Fort Wayne. Los Angeles has one of the largest markets in the United States, well located in relation to rail facilities. Sacramento's terminal market with rail and highway connections is reported as functioning well. In Oklahoma City a new retail and wholesale food market with railroad facilities, although now in private ownership, is under city control with recapture provisions. Although Seattle claims the original farmer's market of the world, the wholesale district is congested and served only by one railroad over a single track, without harbor facilities. The extensive plans of Portland, Ore., for a public market on the waterfront have been dropped due to financing difficulties. An extensive fruit and produce terminal proposed in 1924 by the Public Belt Railroad Commission of New Orleans is still pending. The food terminal proposed for Milwaukee in 1925 in the report of the Board of Public Land Commissioners, and related to comprehensive planning considerations, has not been carried out.

The improvements in vehicular circulation effected through carrying out city plans are more obvious to the public, and far more completely

within the control of the municipality, than readjustments in transit and transportation, and are thus more commonly undertaken. Where cities have suffered acutely from transportation ills, however, or where intercity competition has been keen, great enterprises have been embarked upon, in which the city, the carriers, and the public — as in Cincinnati — already have visible proof of the efficacy of comprehensive planning.

Railroads

The location of railroads in the city structure, in by far the majority of the cities studied, has proved a hindrance to free movement of traffic and to a balanced development of commercial districts. The wedges between railroad lines where several converge toward the central area, and the surroundings of central terminals and freight yards, have usually been blighted and left for the poorer type of residential development, if the total frontage abutting railroad properties has been greater than the amount possible to absorb for industrial sites.

It is easy to find examples of the disorganizing effect of railroads on city growth: main railroad lines at grade through the central streets of the city, as in Syracuse, N. Y., and Brunswick, Ga.; Chinese walls of elevated tracks such as in Schenectady, and the Pennsylvania line now being eliminated in Philadelphia; segregation of the city by railroad tracks into two poorly connected parts as in Altoona, Pa., in Springfield, Mass., in Oklahoma City before the present relocation project, and in Atlanta, where the situation is still acute in spite of the new viaducts; "iron bands" acting as barriers to central business district growth as in Denver, Knoxville, Tenn., and New Haven, Conn.; radiating railroad lines like spokes in a wheel cutting up the city as in Chicago, Houston, Tex., Tulsa, Okla., Jacksonville, Fla.; too close proximity of terminal yards to the heart of the business district, as in Fort Worth, Tex., and Akron, O.; scattered location of freight terminals requiring excessive trucking, as in Council Bluffs, Ia., where in addition every crossing in the city is a grade crossing.

Among the relatively small number of cities which reported a reasonably satisfactory railroad situation are: Buffalo, Indianapolis, Kansas City, Mo., Portland, Ore., and San Diego, Cal. In San Diego, the railroads run between the built-up area of the city and the waterfront, forming only a slight barrier either to business or traffic, and the freight terminals have an almost perfect location in the industrial district south of the city. This unusual opportunity for efficient functioning of rail-

road terminals in San Diego should be contrasted with the confusion arising from poorly located facilities in Springfield, Mass. (a city in approximately the same population class), where readjustments desirable from the point of view of the comprehensive plan of the city have so far proved impracticable to carry out.

It should also be noted that the attitude of the railroads to the city planning commission in San Diego has been exceptionally coöperative. In a few cities hostility to city planning projects was reported on the part of the railroads, but in the main, there appeared to be either a neutral attitude or active friendliness and willingness to coöperate as far as feasible. An especially favorable attitude on the part of the railroads was reported in Chicago, Cincinnati, Dayton, Akron, Cleveland, Toledo, Philadelphia, Altoona, Pittsburgh, Council Bluffs, Salt Lake City, and Sacramento.

The most gigantic railroad terminal improvements undertaken in accordance with a comprehensive city plan are found in Cincinnati, where the railroads are paying the entire cost of a $55,000,000 proposition, in complete accord with the Official Plan of Cincinnati. The project includes a passenger terminal, new freight terminals farther out (for part of which a hill is being washed into a valley to raise the level for freight yards), and viaducts over railroad approaches from the highway system to the new station. The new Union Station in Chicago* has been completed, a new Illinois Central terminal is covered by ordinance, and the South Side Terminal problem, involving thirteen railroads, is in process of negotiation. No more striking example of railroad relocation and complicated problems of land redistribution can be found than that involved in the straightening of the Chicago River, which means new street connections and new life for a large area hitherto blocked by the river and the railroads.

Terminal improvements, which will undoubtedly have as far-reaching a result as the Grand Central-Park Avenue improvements in New York, are now under way in Philadelphia, where a new thoroughfare eighty feet wide is to be created above the depressed tracks running into Broad Street from the new Pennsylvania central terminal station on the west side of the Schuylkill. In carrying out this splendid terminal improvement, with a monumental station closing the view down the proposed boulevard, the Pennsylvania Railroad is fitting into the axia-

* In mentioning recent improvements, the older freight tunnels of Chicago should not be forgotten, which facilitate movement of freight below the streets.

schemes for central Philadelphia initiated by the Fairmount Parkway, crowned by the new museum.

The Boston and Maine Railroad has undertaken a great North Terminal development in Boston, including a station with an auditorium, already completed, and freight terminals combined with market facilities. In Oklahoma City track removal, according to the agreement recently effected with the railroads, will clear the heart of the city for a proposed civic center and downtown park. In addition the Santa Fe Railroad has agreed to elevate its tracks within the city at the lowest possible cost to the municipality, and other railroad grade separations form a comprehensive program over a period of years. In Louisville, besides the grade crossing elimination schemes going forward in accordance with plans agreed to by the city and the railroads, freight terminals are being voluntarily removed by the railroads to a location farther from the central district. From Madison, Wis., progress is reported on the removal of freight yards in accordance with the city plan; and in Asheville, N. C., also in accordance with the city plan, a new freight terminal has been located and some track relocation effected. Freight exchange in Rochester, N. Y., is facilitated on the industrial railroad constructed in the bed of the abandoned Erie Canal.

In Duluth, where the land available for retail business is limited by the topography, unification of freight terminals is urgent, because they now lie close between the downtown district and the waterfront. From Evansville, Ind., it is reported that the city plan recommendations for rerouting through-freight around the city are certain to be carried out, which will relieve freight terminals close to the heart of the city. In Minneapolis, where the freight terminals are considered to be well located outside the congested districts, the railroads and the planning commission are studying freight terminal unification. The terminal improvements for Fort Worth, Tex., proposed in the city plan have not yet been undertaken.

In addition to the new Chicago Union station several other cities have great stations in progress or about to be undertaken: Cincinnati, Buffalo, Omaha, Tulsa, and Cleveland. Indianapolis claims the first union station in the United States; and the union station of Washington sets an architectural standard for the rest of the country.

In Indianapolis grade crossing elimination began in 1910 and has gone steadily forward since, with complete track elevation throughout the business section; elevation is now proposed on the railroad belt line.

Among cities solving difficult grade crossing problems to-day, Dayton is conspicuous, having authorized a bond issue of $8,000,000 in 1926 to carry out recommendations of the comprehensive city plan, involving relocation and grade separation; the entire project is expected to cost something like $25,000,000. In Cincinnati a bond issue of $2,000,000 was recently passed for grade separation in addition to $3,000,000 already available and being used in accordance with the Official Plan. In Cleveland about two-thirds of the grade crossings in the city are eliminated and work on eliminating others is getting under way. In Columbus the majority of crossings are in process of being eliminated according to a program initiated in 1905. In Buffalo many crossings have been eliminated and others are to be separated in the future according to plans in charge of the Buffalo Grade Crossing and Terminal Commission.

As a result of planning studies several years ago progress is being made in Louisville on grade separation work, in spite of certain retarding influences. Baltimore has a bridge and highway loan fund of several millions that can be used for grade crossing eliminations, and major thoroughfares have been laid out so that crossing elimination would be practicable: some progress has already been made. Work is going forward in Detroit in charge of the Grade Separation Division of the Department of Public Works. In Minneapolis an extensive elimination program has been largely completed except in the case of one railroad. The 1923 bond issue in St. Louis made possible many eliminations. After a very long and difficult court and legislative fight, the St. Louis Plan Commission secured a grade separation by the depression of the Wabash Railroad tracks and the elevation of the roadway, — an important victory because by it was determined that the Wabash would have ultimately to depress its tracks through Forest Park as against running through on an elevation.

In Harrisburg, Pa., all fifteen crossings on the main line tracks have been eliminated, the last two having been just completed. The Market Street Subway widening, already projected but also recommended in the Harrisburg Thoroughfare Plan, is under way and will be shortly completed. In Pittsburgh all crossings of importance have been separated. In Paterson, N. J., the planning commission has been responsible for the improved type of eliminations being accomplished, which were featured in city planning studies for Paterson. An extensive grade crossing elimination plan made for Greensboro, N. C., closely studied with a view to preserving major streets and closing minor streets, is being carried out

with universal approval; and here it is interesting to note that the work is being done on a fifty-fifty basis and that the city of Greensboro financed its own share by thirty-year serial bonds, and also the railroad's share to be repaid to the city in twenty-eight annual installments. In Memphis, Tenn., over a period of years about twenty grade crossing separations have been effected.

Atlanta and Grand Rapids have been greatly benefited by viaducts crossing the concentrated railroad tracks, but in Atlanta there is need for much more grade separation because of the high accident rate at crossings in the city. In Des Moines, although several separations have been accomplished on the outskirts, there is a serious problem in the heart of the city; and conversely in Denver, where eliminations have been accomplished at points of greatest traffic density, many more are needed in outlying portions. A grade crossing separation program is being carried out in Dallas, Tex.; and in Portland, Ore., all crossings except those on the Southern Pacific are eliminated, and this railroad is planning eliminations as soon as they can be financed.

Among cities reporting very bad grade crossing conditions in addition to Atlanta are Council Bluffs, Canton, O., Hartford, Conn., and St. Paul. Cities with extensive plans for grade crossing elimination are Birmingham, Ala., where a $4,000,000 bond issue has been passed for track elevation; Houston, Tex., where the difficulty of draining underpasses retards progress; Los Angeles, where the city has participated largely in viaduct constructions and other projects and where an unofficial County Grade Crossing Committee is working on a comprehensive program and guiding work already undertaken; Milwaukee, where many more separations are needed than were provided for in early plans; Roanoke, Va., where a beginning has been made on separations more of which are proposed in the comprehensive plan; Seattle, where a special commission is at work; Syracuse, N. Y., where action on the comprehensive grade crossing report is still pending; Elmira, N. Y., where the final design stage has just been reached in the program for eliminating thirty-two grade crossings in three years; and the region of Washington, D. C., where grade crossings are a serious problem outside the city, although an elimination program within the city limits is already completely carried out.

Complicated problems are involved in determining the types of separation to be selected for grade crossing eliminations. The notes given in the Appendix made during the study tour suggest some of the solutions

BEFORE

Courtesy of Judge E. B. Klewer, City Planning Commission, Memphis

AFTER

BELLEVUE BOULEVARD, MEMPHIS

CARRYING OUT THE CITY PLAN: RAILROAD GRADE CROSSING ELIMINATIONS

One pair in an effective series of "Before and After" pictures
assembled by the City Planning Commission

which have been adopted. A study of several of the exhaustive technical reports on grade crossing programs, such as the California Railroad Commission's for Los Angeles, Fay, Spofford and Thorndike's for Syracuse, the Technical Advisory Corporation's for Dayton and Elmira, will yield an understanding of the advantages and disadvantages of the methods of track elevation, track depression, and combinations of both, the viaducts or tunnels through which roadways are to be carried, and of the types of situations where each method is most appropriate.

In very few cities has electrification of railroads been accomplished as an aid to terminal improvements. The New York, New Haven and Hartford electrification from New Haven to the Grand Central Station in New York City made possible the creation of immense land values along Park Avenue over the depressed tracks, and, as already suggested, a similar improvement is anticipated in Philadelphia. The Pennsylvania Railroad has already made a beginning on its program for ultimate electrification, including Trenton, Camden, Philadelphia, Wilmington, Baltimore and Washington. In Chicago the electrification of the Illinois Central has been accomplished in spite of the 1915 report of the Chicago Association of Commerce declaring it impracticable. In Rochester, N. Y., the Erie is electrified but both steam and electric trains are run. In Cleveland tracks into the new terminal are to be electrified for a distance of seven or eight miles out. In Oklahoma City the street railroad company is developing a belt line service by electrifying a previous steam belt line. Electrification has been agitated in Atlanta to eliminate the smoke nuisance; and in St. Paul plans for electrification are said to be ready and waiting for the time when they can be financed.

The immense advantage to the development of central business districts effected by depressed and electrified tracks, and the enormous gain to the community in cleanliness and better air, will undoubtedly bring about in the fullness of time a far larger program of electrification than we can now predict. The great benefits already resulting from the few existing examples are object lessons too potent not to be followed when the financial situation of the railroads shall permit.

There has been very little comprehensively planned beautification of railroad approaches to cities in the United States. There are, however, a number of notable examples of improvement of suburban station grounds and railroad rights of way such as those along the Boston and

Albany Railroad near Boston, and the Pennsylvania lines near Philadelphia. In Pittsburgh the Pennsylvania Railroad and the Lake Erie have attempted to make the rights of way attractive by cleaning them up and sodding slopes. Some cities have naturally beautiful approaches, such as Asheville, N. C., through mountain scenery, and Altoona, Pa., where the Pennsylvania Railroad has been very careful to preserve the beauty of the famous horse-shoe curve. Even though striking scenery may not mark the approach to a city the general air of well-being may contribute to a good impression on the mind of the incoming traveler. In New Bedford, Mass., an industrial city, it was pointed out that few other similar towns could show to the visitor so characteristic a view of the city *: the railroad enters with the main street on one side and the district containing large up-to-date plants on the other, instead of the usual slum dwellings lining the entrance to hundreds of towns.

A number of cities are planning to express civic pride to the incoming traveler by making the union station a part of the civic center development. The great Cleveland union terminal is adjacent to, although not an integral part of, the civic center. In Tulsa, Okla., the new union station may possibly become part of the civic center scheme. In the small city of Kenosha, Wis., a new station is part of the civic center scheme but it is not expected to be accomplished for a few years. The axial relation of the new station in Philadelphia has just been noted. The Atlanta Plaza project proposed many years ago (see *City Planning Progress, 1917*) is still pending and the citizens fear that it may be frustrated by development gradually edging in. The more recently proposed Plaza development in St. Paul failed to pass the city council but some improvements have been made in the way of cutting back buildings to widen the street in front of the union station.

This question of beautifying railroad approaches to cities has been discussed in city plan and improvement reports since the beginning of our "city beautiful movement" in America, and many fine examples from Europe have been cited as a reproach to our carelessness as to first impressions of incoming visitors. The notable example in the plan of our National Capital, offered by the Washington union station and plaza development now being completed, should call again to the attention of this country our deficiencies and opportunities.

* The pleasant characteristic views of New London, Conn., have been described by Mr. A. A. Shurtleff in *City Planning*, Oct., 1927.

Port Development

The competition between great ports has given rise to projects for port development which have until recently in only a few cases been allied to comprehensive city plans. Economic considerations of tributary territory — regional or national — and engineering considerations of terminal facilities have naturally been dominant in physical plans. The historic exception is the regionally-conceived Bogue Plan of 1911 for Seattle, which although not followed in detail, gave an immense impetus to the development of the port by making the people of Seattle think in terms of municipally-owned terminals, since very successful. The Port of Seattle Commission now has a comprehensive port plan, and is a potent agency in the development of the city.

The comprehensive character of the work of the Port of New York Authority (an inter-state New York-New Jersey commission) has already been discussed; this is in effect a great regional transportation planning agency, analyzing the physical connections of the waterfront with the hinterland, suggesting more efficient methods of handling and distributing freight and passengers by rail, water and truck, and seeking to point the way out of the confusion of an incredibly vast unguided growth to some semblance of order and efficiency. Already four inter-state bridges have been financed, a belt line on the New Jersey side of the Hudson River established, and a ferry service initiated between Brooklyn and Jersey City, while the proposed series of inland freight stations is being worked out in coöperation with the railroads. The work of the Port Authority has been closely allied to the Regional Plan studies, so that we have in the most complicated port problem of the country also the most comprehensively studied. The city of Newark, N. J., has long realized its great opportunities as an industrial port and has built dock facilities as part of more extensive plans involving the development of the New Jersey Meadows.

In 1922 The Port Development Commission of Baltimore published extensive plans for the accomplishment of which the city of Baltimore was empowered to issue bonds amounting to $50,000,000, whenever construction could be carried out on a paying basis. Of this $10,000,000 already have been authorized. It is estimated that some $22,000,000 have already been expended by the Federal Government and the city for port development. A municipally-owned belt-line railroad connects all terminals along the waterfront.

Of the other Atlantic seaports, Boston is indebted to state enterprise for some recent modern docks and terminals but there is no great comprehensive plan for development comparable to that of New York or Baltimore, although one may be expected from the Port Commission just authorized by Act of the Massachusetts Legislature. Even more than Philadelphia, which has some port development, Wilmington on the Delaware River is distinguished for a $3,000,000 municipal terminal operated under the direction of a wide-awake Board of Harbor Commissioners. Norfolk, Va., has a special plan for port development completed but not published. No plan has yet been prepared by the Port Utilities Commission for the port of Charleston, S. C. There is a port authority in Savannah, Ga., and the city has acquired over 1000 acres along the river with two miles of waterfront for port development. The movement to make Savannah a state port was blocked by the claims of Brunswick which includes port development in the Glynn County Plan. Municipal terminal facilities were financed by a bond issue at Jacksonville, Fla., twenty miles up river from the Atlantic.

Close to the Gulf of Mexico, New Orleans — one of the greatest ports of the country, with a vast extent of navigable inland waterways tributary — has developed exceptional facilities for handling shipping and for constructing industrial waterfront terminals along the great Inner Harbor Navigation Canal, created by the Board of Commissioners of the Port of New Orleans to connect the Mississippi River with Lake Pontchartrain. This great port includes a river frontage of 41 miles and a canal frontage of 11 miles from which additional deep water laterals may be constructed, for industrial terminals, thus directly connected with waterborne sources of supply and connected with the hinterland by comprehensive service from the New Orleans Public Belt Railroad. Port planning preceded city planning activity in New Orleans, but now is being linked with comprehensive plans for all phases of city development through the work of the City Planning and Zoning Commission. The State of Alabama is emulating New Orleans in undertaking to create a great gulf port at Mobile. Houston, Tex., has a special plan for further port development prepared by the county board operating the Navigation District.

Of Pacific ports, Tacoma, like Seattle, reports a harbor plan (about 1912) also by Mr. Bogue, but it is only recently that any extensive development has been undertaken by a Port District Commission. Portland, Ore., reports more than $40,000,000 invested in harbor improve-

Courtesy of C. A. McClure, Secretary, Portland (Ore.) City Planning Commission

PORT OF PORTLAND AIRPORT

ments and port facilities, largely according to a plan of development adopted in 1910 by the Port of Portland. An airport is now included in the port development. The great port of San Francisco has been developed by the State Harbor Commission, but recently municipal enterprise has been undertaking a reclamation project to create additional industrial waterfront sites. Across the Bay the city of Oakland, following a comprehensive harbor plan, voted nearly $10,000,000 for development of port facilities in Oakland, of which $1,000,000 has already been devoted to an airport in conjunction. In spite of an original inland location of the city, Los Angeles has created a great port by extending municipal boundaries through a narrow strip to the former San Pedro harbor; the location of the waterfront development so far removed from the city has made port planning and city planning largely independent activities. The Harbor Department of the City of San Diego is developing the waterfront according to a comprehensive harbor plan, approved in 1927, port features of the general city plan for San Diego having been modified by the port commission to accord with its own specially prepared plans.

In all our largest ports on the Great Lakes except Cleveland, there have been some recent studies for port development. In Detroit and Duluth these were part of city planning studies but have had as yet no result; in Toledo the city planning studies have been followed by a special port development plan largely confirming the report which formed a unit in the comprehensive plan. Milwaukee's harbor has been the leading factor in promoting the growth of the city, and future development is provided for in the Port of Milwaukee Plan of 1922, toward which substantial progress in construction has been made. The waterfront of Buffalo is said to be equipped to handle more shipping than can reach the docks, and port development by the municipality to eliminate the bottleneck situation is anticipated in the near future. The Commercial Club of Chicago which financed the original Plan of Chicago has now financed a comprehensive harbor plan which was published in 1927 in an illustrated report exceptionally valuable to other cities for reference. No municipal action in Chicago has yet resulted from the report. The whole question of Great Lakes shipping and the anticipated effect of the opening of the Welland Canal on lake ports was discussed in the report for the Oswego Harbor and Dock Commission published in 1927.

Albany and St. Louis, among ports on inland waterways, have devoted particular attention to waterfront development. Following compre-

hensive port studies, the Albany Port Commission is revising plans to extend developments already amounting to some $20,000,000 of which about half has been financed by the Port Commission and half by the United States. The great riverfront plan of St. Louis combines commercial waterfront development with other planning features to an unprecedented degree. Memphis and Evansville * have included port development studies in their comprehensive city plans; and the city planning department of Pittsburgh is now coöperating on riverfront plans, while Cincinnati is also studying commercial and recreational possibilities of the river shores. The inland waterways and inland ports of this country are far behind those of Europe in use and development. As President Hoover has pointed out, national study of inland waterways is one of the greatest present needs of the United States.

The delightful combination of commercial and recreational uses of the waterfront which characterizes Hamburg and Paris and dozens of other continental ports is almost entirely lacking in the United States. The St. Louis riverfront project features this combination; a decreasing number of piers in New York have been used for playgrounds; Baltimore and Chicago also have recreation piers combined with use for shipping, and in Seattle the roof of one of the terminals is used as a promenade and observation point. In our cities recreational use of the waterfront has been distinctly segregated from commercial development, and in the past frequently crowded out by it, as we see in Chapters IX and XV. In the cities visited during the field study, practically no constructed examples were found of the combined use which has often been pictured in earlier planning reports as desirable, both from the point of view of civic appearance and the pleasure of the public. A most valuable and interesting special study could be made of feasible opportunities throughout the country for this combined use, starting from European models and a collection of existing proposals in early and recent American plan reports.

This special phase might well be a part of a collaborative field study by technical experts of the whole subject of port and waterfront development specifically in its relation to the city plan, — including design of marginal roads and tributary arteries, separation of passenger and freight vehicles on port highways with a view to convenient approach and efficient distribution, articulation of railroad and port terminals, zoning

* The Plan for Railroad and Harbor Development, the fourth in the series of city planning studies for Evansville, has just been issued, 1929.

of waterfront areas, development of industrial terminals, and many other considerations, which have had as yet only local study but which could be made to yield a notable contribution to technical planning knowledge. These few notes resulting from the present field study merely serve to reveal how generally up to the present time port development has been an activity independent of other city planning considerations.

Air Terminals

Although their importance in the complete transportation system of the future can scarcely be overestimated, air terminals will be treated only very briefly in this book, in order that the cursory observations from the present field study may be combined with the more detailed analysis expected to result from the McClintock-Hubbard study just authorized by Harvard University, also under a grant from the Milton Fund. This new airport study, to be conducted during 1929–30, will consider the financing and administration of airports and their relation to the city plan; and in the field work an aviation expert will contribute the aërial transport viewpoint to the viewpoints of municipal government and city planning.

In the words of the recent notable court decision in the State of New York "Aviation is to-day an established method of transportation. The future, even the near future, will make it still more general. The city that is without foresight to build the ports of the new traffic may soon be left behind in the race of competition." A decade ago air terminals were provided for in some comprehensive city plans; scarcely a comprehensive city or regional plan is presented to-day without suggested locations for one or more airports. Too few cities, however, are actually locating and developing airports related in any desirable way to local transportation and other considerations of comprehensive planning.

Information on airports and airways is compiled for circulation and kept up-to-date by the Aëronautics Branch of the United States Department of Commerce, which is also an authority on technical requirements of airport design. Consultants engaged in city planning and aviation engineers have also published a considerable number of papers on the location and design of airports.

Of special air terminal surveys, that for the location of an airport in the Philadelphia district, sponsored by the Regional Planning Federation

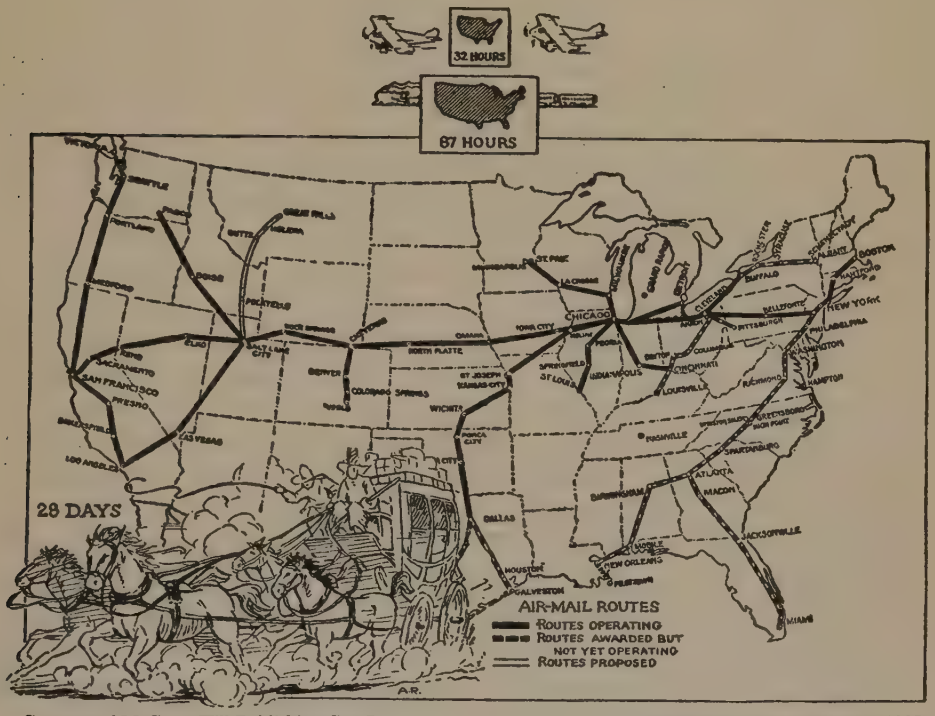
and Chamber of Commerce is the most interesting. The Chicago Regional Planning Association's Committee on Airways recently completed an unpublished survey of existing airports and landing fields in the Chicago region. The Regional Plan of New York has considered air terminals as part of its Survey Volume IV on Transit and Transportation. The Detroit City Plan Commission over a period of years has been making studies for airport locations.

The Buffalo airport, one of the best in the country, provides industrial sites as part of the terminal development. Other outstanding municipal airports now in use are found in Newark, N. J., Oakland, Cal., Portland, Ore., Dallas and El Paso, St. Louis, St. Paul, Chicago, and Hartford, Conn. Construction has begun on the great Baltimore municipal airport financed by bond issue. Other large bond issues for airports have been passed in Cincinnati, Akron, Columbus, O., Kansas City, Mo., Detroit, Pittsburgh, San Diego, and Tacoma. Since air terminals are essentially a regional problem, it is appropriate that counties should be coöperating with city governments in financing airports; and this was found to be the case in several of the cities already mentioned and many others.

In a few cities in mountainous country, such as Altoona, Pa., Asheville, N. C., and Knoxville, Tenn., topography renders it difficult to find a suitable level airport site, free from surrounding obstructions; but the great majority of progressive cities are now considering or acquiring airport sites. The Department of Commerce figures of June 1, 1929, give 399 municipal airports as existing, and many more proposed. The considerable distance from the centers of large cities at which airports usually have been forced to locate renders essential rapid and adequate local transportation by rail, water, or highway, — now for mail and passengers and in future for freight. Further, the zoning * of areas surrounding airports for appropriate industry, the protection of airport sites against high buildings and other uses detrimental to aircraft, and conversely the protection of areas most appropriately used for residence from the location of airports with their attendant noise and traffic, suggest the regional planning considerations which enter into air terminal location, and which will be comprehensively considered in the Harvard special airport study. The selection of key cities for major airports forms a part of the comprehensive national system of airways now being developed under the guidance of the United States Department of Com-

* Zoning in relation to airports is discussed by Mr. Bassett in *City Planning*, July, 1929.

merce. The apparent reduction of distance by air transport, with an attendant psychological diminution in the size of the United States, makes obvious and practical the advantages of planning on a national scale, as a complement to the fitting of air transport terminals into the organic structure of cities and regions.



Courtesy of McGraw-Hill Publishing Co., Inc. From *Magazine of Business*, 1928.

"The Airplane is Dwarfing the Map of America"

CHAPTER XV

PARKS AND RECREATION

Recreation Needs

IN view of the continuing surveys of public recreation in American cities carried on by the Playground and Recreation Association of America, this Harvard study has made no attempt to go into detail in the recreation field, but has rather, as in the highly specialized fields of transit and transportation, aimed merely at analyzing large relations, between public open spaces and other elements of city planning, and between the various types of recreative open spaces which taken together make up a comprehensive system.

Under the direction of the Playground and Recreation Association, local recreation surveys were found to have been conducted for some eight or ten of the cities selected for the Harvard study; and the general conclusions to be drawn from these have been fortified from the briefer analyses of many other cities set forth in Mr. L. H. Weir's monumental *Park Manual* which resulted from the national study undertaken at the instance of the National Conference on Outdoor Recreation, financed by a grant from the Laura Spelman Rockefeller Foundation to the Playground and Recreation Association of America. In addition there have been a number of independent local recreation surveys and a still larger number of surveys as parts of comprehensive city plans prepared by planning consultants.

From all these it would appear that the greatest recreation need in the cities of the United States to-day is for neighborhood recreation grounds provided in proportion to population density and so located in residential areas that children and adults may be able to make daily use of these facilities, as they can in the almost ideal park and recreation system of Minneapolis. Much discussion has been going forward in the last two years as to certain "standards" which may be evolved as to the spacing of these neighborhood grounds and as to the exact amount of play area which should be provided for various types of residential development and the consequent densities of population. Studies made

by the Regional Plan of New York for Manhattan and other parts of the New York region present a discouraging picture of the feasibility of really meeting recreation needs in congested districts. The Regional Plan concludes that where the density has already risen above 50 persons or 12 houses on an average acre, adequate provision of open space is impossible.

Similarly studies made for the Playground and Recreation Association of America point to an impossibility of setting up in dense populations any practical standards for play space which even approach a desirable provision for the outdoor recreation needs of a balanced human existence. The conclusion to which Mr. Weir of that Association has been driven is that we cannot expect ever to provide adequately for this vital requirement of life unless the residential population is spread out in open-development residential districts, normally expressed by single-family homes built no more densely than six to the acre. It is encouraging to have standards from two sources based on a social conception rather than on a purely statistical average arrived at from existing conditions. Just because a few of the metropolitan cities are unable to provide a considerable portion of their populations with either homes or play spaces favorable to complete living — except perhaps in sporadic successful experiments such as "Sunnyside" — is no reason why meager minimum standards should be set up as a guide for the hundreds of growing communities in all parts of the country where there is still opportunity, especially in undeveloped areas, to encourage and apply standards commensurate with needs.

When recreation areas are planned, as they should be, as part of comprehensive city development, aimed toward producing rounded and healthy community growth, the standards for recreation become interwoven with standards for open spaces about residential buildings and with general standards of light and air, to be applied through zoning regulations, through control of land subdivision, and through a system of circulation which spreads rather than congests population groups.

This whole subject of recreation "standards" is now before the American City Planning Institute and National Conference on City Planning, and this present book will therefore make no specific discussion of it, particularly as published papers are expected to be later available. It must be remembered that acreage alone in relation to population is not the criterion of the adequacy of a recreation system in meeting public needs. *It is the balance of various types of park and play areas and their*

distribution in relation to population which determines whether or not a community is well served.

Among the cities visited in the course of the field study, several stand out as having a reasonably complete system of public open spaces of a variety of types: especially Minneapolis, Milwaukee, Oakland, Spokane, Seattle, Houston, Oklahoma City, Philadelphia, and Chicago. We recommend that the *Park Manual* and the United States Department of Labor Bulletin *Park Recreation Areas in the United States*, 1928, be consulted for descriptive details regarding the recreation systems of these cities. The other side of the picture has already been suggested in Chapter IX in the discussion of recognized deficiencies. Among the communities which have been alert in planning matters but found deficient in balanced provision for neighborhood recreation are: Knoxville, Baltimore, Cincinnati, Des Moines, Roanoke, New Bedford, Altoona, Pittsburgh, Toledo, Los Angeles County and the National Capital Region.

Park System Plans

In Chapter I it was pointed out that the park system as developed by Olmsted and Vaux was perhaps the earliest phase of modern city planning in America to be comprehensively conceived; but even this was not conceived in terms which would be considered comprehensive in this present age of denser populations and wider radius of transportation. The difference is to be found largely in the current looser definition of the word "park" which in the Olmstedian vocabulary was limited to a large area of naturalistic landscape developed for the refreshment of a town-worn population. If we differentiate between a "park" system in that sense — a series of naturalistic areas connected by pleasure drives — and the "park and recreation" system in the vocabulary of to-day, we see clearly the limitations of the former as applied to modern planning.

Before turning to an analysis of the elements of an adequate park and recreation system, it will be decidedly worth while to review briefly a few earlier park system plans and, appreciating their incalculable contribution to community well-being, to point out the limiting effect which some of them have undoubtedly had on the ability and willingness of cities to provide for small neighborhood parks and playgrounds. In view of the wealth of information on the acquisition, financing, and administration of American park and recreation systems already available in the

*Park Manual,** we shall make no attempt here to discuss these aspects generally, even though the interaction of design and management has from the very first had a fundamental influence on the success or failure of parks as instruments of social service.

The park system of Kansas City, Mo., designed by the late George E. Kessler in the nineties, has been completely carried out and even added to. The land acquired thus early in accordance with a comprehensive plan of landscape parks and boulevards would now be impossible for the city to obtain; and through the method of financing employed — benefit assessment districts — the present citizens of Kansas City may enjoy these valuable properties and the increased municipal tax revenues from the benefited adjoining lands without any burden of debt. On the other hand the maintenance of the many miles of boulevard pavement, used by automobiles to-day practically as part of the street system, still devolves upon the park department, and the heavy expense for this item has prevented provision of small playgrounds scattered through the heart of the city where they are badly needed. A similar situation in Memphis was relieved by the transfer of park roadway maintenance to the street department of the city. In Cincinnati administrative readjustments have been necessary to supplement the early scenic park system (planned by Mr. Kessler) with the smaller central areas required by the denser population and recommended in the Official Plan. The Robinson plans for the Council Bluffs parks have been generously carried out with the result that the liberal provision of public recreation areas has prevented expenditures for other public improvements, a situation to which popular self-satisfaction with a fine park system has undoubtedly contributed, both in Council Bluffs and Kansas City.

The social, economic, and esthetic value of these landscape park systems cannot be overestimated, but they meet only part of the recreation needs in this present day when home yards are becoming smaller or non-existent. Moreover, now that the use of boulevards for leisurely pleasure driving has been largely superseded by their use for commuters' automobiles or for pleasure cars outbound for the distant country, a fresh analysis of park and parkway uses by each city is essential to determine the equitable distribution of the financial burden and, especially where park income is limited by law, to free sufficient funds for developing a balanced system of recreational areas.

* Cf. also the chapter "Ways of Securing Land for Recreation" in Survey Volume V, Regional Plan of New York and Its Environs.

The Olmsted plans for Seattle and Spokane have served as a guide to a very fine development, and in the case of Spokane the possession of landscape parks has not deterred the city from making one of the most complete and balanced layouts of large and small parks in America. The very early park plans for Minneapolis initiated by H. W. S. Cleveland have been the starting point for perhaps the best park system in the United States, from both social and esthetic viewpoints, for a city of that size. The Olmsted park plans for Rochester, N. Y., have been carried out to a large degree and have had a highly beneficial influence on the development of the city. The influence of the Chicago South Park system with its waterfront landscape parks and community centers has been profound, both on the plan of Chicago and throughout the country. The well distributed parks and parkways of Philadelphia have had an unusual influence on the appearance of the city, and have in fact been made the principal instrument of present planning developments. In Colorado, where the preservation of landscape for the attraction of tourists is especially important from the economic point of view, Olmsted plans for Boulder parks and for Denver mountain parks have largely been accomplished.*

The early Manning plans for the parks of Harrisburg, Pa., and beautification of the riverfront have been carried out and are shortly to be extended, making Harrisburg one of the handsomest of state capital cities, although the city has been backward in zoning and in thoroughfare improvements. The foresight of another state capital, Oklahoma City, in acquiring an extensive outer park system has influenced citizens in securing later improvements. The metropolitan parks of the Rhode Island capital city, Providence, have had a strong influence on the recent plans for more comprehensive civic development, and the early trustee-held system for Madison, Wis. — still another capital — has been the starting point of its planning. Initiated by Charles Eliot, the Boston Metropolitan park system, articulated with the beautiful city parks and drives, undoubtedly has resulted in the fine suburban development which few American cities can equal.

As we have already suggested in Chapter IX, in discussing the effect of planned improvements on the public mind, it is difficult to generalize as to the psychological consequences of American municipal park systems. Observation would point to the obvious conclusion that the more nearly

* The Denver Planning Commission has just issued a preliminary report on major recreational facilities which is intended to secure a better balanced system of recreation areas of all types.

parks have been balanced with other planning considerations, the more favorable and steady has been their beneficial influence.

The greater number of municipal park systems being projected and accomplished to-day are allied to comprehensive city planning. No more striking example can be found than in Houston, Tex., where, since 1923, more than 1750 acres have been acquired by purchase or gift and added to the 800 acres which had already resulted from the early Kessler plan. In addition several miles of bayou shores are being acquired for connecting parkways, the whole system being part of the comprehensive plan for Houston.

In planning for parks and recreation areas as parts of city plans it is important not to lose the delicate appreciation of landscape as allied to social values which the elder Olmsted expressed and which he transmitted as his most important legacy to the landscape art. The provision of beauty cannot be achieved on any mechanical basis of so many square feet per person, and it would be a great loss to the recreation of the public if in securing perfect balance and adjustment we were to lose the soul which the earlier landscape art was able to create and which has had so profound an influence on American life.*

The lack of in-town open land arising from present dense development, and the free movement of people permitted by the automobile, are combining to make the planning of large parks and connecting parkways more and more a matter of metropolitan or county concern, as suggested in Chapter IV. The park system of Westchester County, N. Y., is the outstanding example of modern practice, and shows how esthetic may be combined with economic success to an almost unparalleled degree. The older Essex County parks and more recently those of Union County, N. J., and the Niagara Frontier Region, attest the success of the county as a park planning unit, and in the Middle West, Wayne County, Mich., Milwaukee County, Wis., and Cook County, Ill., deserve especial study for constantly enlarging county park areas related to regional plans. The metropolitan parks of Boston, Providence, and Cleveland are long-standing examples of metropolitan districts as a basis for securing regional park systems. All the comprehensive regional planning studies which are going forward to-day are stressing the reservation of land appropriate for recreation before the influx of a growing population just as some foresighted cities of a generation ago secured outer park areas which are now priceless possessions.

* See Olmsted and Kimball, *Central Park*, Chapter XII.

Elements of a Park and Recreation System

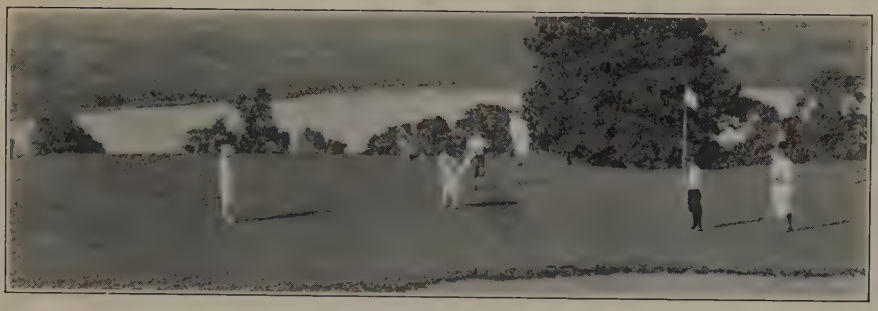
Although a more detailed classification and analysis of recreation areas may be found in H. V. Hubbard's "Parks and Playgrounds" paper of 1924,* for convenience in discussion, the essential elements of a modern park and recreation system may be reduced to three general types: playgrounds for smaller children, usually located at school buildings; neighborhood parks and athletic fields for the rest or active play of adults and older children, scattered through residential districts according to density of population; and landscape parks and reservations, connected by parkways or scenic drives, to which picnic expeditions may be made and where the pleasures of walking and riding may be enjoyed in rural surroundings. To these three universal types must be added reservations of beaches, streams and lakes, or whatever other natural features may be seized upon to provide recreation for the general public. Still, again, to the second type must be added golf courses, and perhaps other grounds for special sports, which often are not undertaken by a city unless they can be made reasonably self-supporting and no burden on the public at large.

Of landscape parks we have been speaking in the preceding section. Many fine individual examples may be found in the park systems there mentioned and also among the parks of Cleveland, Baltimore, Hartford, Indianapolis, Louisville, Portland, Ore., Tacoma, San Francisco, St. Louis, St. Paul, Detroit, and Washington, D. C. Cities which lack landscape park areas — such as Knoxville, Tenn., which has no wooded park area at all — would do well to acquire available lands now lying undeveloped before suburban growth makes this impossible or prohibitively expensive.

In determining whether a city is well served with landscape parks, it is necessary to consider what other landscape areas are available to its citizens for enjoyment in county, state, and national parks. The communities of Westchester County, N. Y. — White Plains, for instance — have little need individually for supporting large municipal parks when the great Westchester County system lies available. It is misleading to read in park statistics that Newark, N. J., has 14,423 inhabitants to each one acre of municipal park (as against 268 to one acre in St. Louis, for instance) when the highly developed park system of Essex County lies

* "Parks and Playgrounds: American experience as to their requirements and distribution as elements in the city plan." From Proceedings of International Town Planning Conference, Amsterdam, 1924.

Picnicking along the Hudson River Shore at Crugers



Mohansic Golf Course

Glen Island Beach

Courtesy of Westchester County (N.Y.) Park Commission

Tibbetts Brook Swimming Pool

TYPICAL VIEWS, WESTCHESTER COUNTY PARK SYSTEM

around the city. The Cook County Forest Preserves serve the people of Chicago, and two large Allegheny County parks are within seven miles of the city limits of Pittsburgh. Wayne County parks and several strategically located small state parks supplement the municipal recreation areas of Detroit. Other cities closely served by state parks are Des Moines, Duluth, Omaha, Syracuse, and New Haven. Asheville, N. C., and Chattanooga, Tenn., are in a region of national parks and forests.

The wide radius of pleasure travel offered by the automobile makes the provision of landscape parks essentially a regional problem, and, as the National Conference on Outdoor Recreation has pointed out, if the whole country is to be well served by scenic reservations ranging in size and use from the close-in municipal park to such great wildernesses as the Yellowstone, it is only by combining national, state, and regional surveys that completely supplementary systems may be worked out.

The ideal diagram of a municipal or metropolitan park and parkway system would seem to be a series of radiating wedges running outward from the heart of the city, reaching several large outlying landscape reservations which are in turn connected by a circumferential drive.

The parkway system of Indianapolis is distinctly radial. The park systems of Philadelphia, Baltimore, Boston, and Providence suggest the basic radial development arising from a series of river and stream valleys. In Duluth the ravine parks lead out from the city and parkways act as circumferential belt lines. In Kansas City, Mo., there is a combination of radial and circumferential parkways linking practically all the parks. The plans of the National Capital Park and Planning Commission for Washington contemplate the supplementing of the present radial parkway system by inner and outer circumferential drives. A number of the older parkway systems in cities visited are almost wholly circumferential, as in Cleveland, Council Bluffs, Harrisburg, Memphis, Minneapolis, Oklahoma City, and Seattle.

The essential distinction between a parkway, a boulevard, and a wide traffic street — graphically explained in the Olmsted report for Baltimore park extension in 1926 — must not be forgotten in discussing the functions of a parkway system. A parkway is really an elongated park, with a road running through it, while a boulevard is a wide street often subdivided with planting decorations of grass strips or rows of trees, differing in appearance and type of traffic from a major thoroughfare.

While enjoyment of pleasant landscape features continues to be the theoretical justification of the parkway as distinguished from the boule-

vard, in actual practice the parkway is becoming more and more a fast light-traffic way, used to get quickly from one part of the city to another or from the suburbs to the business center. The volume of traffic frequently makes landscape enjoyment almost impossible. Considering parkways in regional terms, best exemplified in Westchester County, we find there a combination of the parkway and boulevard used for commuting passenger automobile traffic and for holiday pleasure riding, and this combination appears to be the future normal function.

In the comprehensive city and regional plan the relation of these fast light-traffic ways to trucking thoroughfares is of prime importance. The two systems should be conceived as supplementary; and as already pointed out in Chapter XII, the trucking highways may parallel pleasure traffic-ways or form an entirely independent system. In Philadelphia, Chicago, St. Paul, Denver, and San Diego there is a distinctly parallel relation. In Memphis, when no parallel street is available, heavy traffic is permitted on parkways, which confusion of use reveals a fundamental deficiency not yet remedied in the in-town districts but provided for in the parkway and thoroughfare plan for outlying areas.

Turning now to the recreation grounds which should lie within easy walking distance of every home, we find a growing tendency to combine in an area of 15 to 25 acres opportunity for active and passive recreation for all members of the family, except those who are willing to go farther afield for golf or bathing. The neighborhood playfield-park has reached a high degree of development in Minneapolis, which may be taken as typical of modern approved recreation practice. According to landscape opportunity offered, some part of the area is developed for quiet strolling or sitting in the shade, but the greater part is usually planned for active exercise, with two standard-size athletic fields, men's and women's outdoor gymnasiums, a little children's corner, and wading pool, tennis courts, and field house.

When coöperation between municipal recreation and school authorities makes possible the use of high and junior high schools as community centers, the neighborhood playfield-park may be combined with school grounds. In any case, substantial bounding plantations are recommended which afford space for walks and seats for those who do not wish to participate in games or join the spectators.

In comprehensive city plans these neighborhood playfield-parks are being provided to serve people living within a radius of one-half to one mile. Examples of lack of adequate facilities may be found revealed

in the diagrams of the Baltimore park extension report just referred to, and in the Bartholomew Des Moines recreation report of 1927. Examples of exceptionally equitable distribution of neighborhood recreation areas may be sought in Spokane as well as in Minneapolis. In Fort Wayne neighborhood parks of from 5 to 25 acres are so located that there is one within ten minutes' walk of every citizen's home.

It seems to be generally agreed that children's playgrounds of 5 or more acres should be located in conjunction with public elementary schools, and that high and junior high schools should be built on sites of from 10 to 20 acres or more, thus allowing ample area for athletic fields and bordering plantations. Playgrounds for very little children are usually found combined with neighborhood playfield-parks frequented by mothers and older children, or more rarely in the interiors of residential blocks.

Although a few cities are not making any attempt to correlate playgrounds with schools, the information secured during the field study shows that educational, recreational, and city planning policies all tend toward the closest possible relation between playgrounds and schools in comprehensive plans. New school sites meeting or exceeding the minimum standards of 5 and 10 acres just mentioned — some even exceeding the twenty-acre standard of Gary, Ind., for every school site — are being provided, as a result of special school or recreation surveys, or of city planning studies.

Among cities found to have a particularly close relationship between school and recreation departments and very high standards of play space in connection with school buildings are Detroit, Milwaukee, Minneapolis, and Oakland. The policy of Milwaukee in acquiring tracts of 10 to 20 acres outside the city for future school and playground sites should be especially noted. Greensboro, N. C., and the neighboring city of Winston-Salem, are remarkable for the exceptionally ample size of school playgrounds, and in Houston, Tex., buildings on inadequate sites are being abandoned for new buildings with playgrounds meeting modern standards, so that now practically every school is properly equipped with play space. Flint, Mich., is another example which may be cited of adequate school playground area provided in accordance with a comprehensive plan.

In view of various experiments which have been made in planning children's playgrounds in the interiors of blocks, — both in apartment districts such as Sunnyside, N. Y., and in restricted residential areas,

such as the Country Club District in Kansas City, — the comments on this question secured in the course of the field study are of particular interest and will be found in full in the Appendix. They should be read in connection with Mr. S. H. Hare's article on this subject in *City Planning*, October, 1928, which discusses both the lack of success of certain interior playgrounds and the frittering effect of requiring small open spaces when land is subdivided, without regard to their play efficiency or future administration. When block playgrounds can be administered by community block organizations on the Sunnyside plan, they may prove desirable, or a few may succeed if the city can maintain them and exercise some measure of supervision. In the opinion of Mr. Weir of the Playground and Recreation Association of America, however, block interior playgrounds are impractical from the standpoint of public control if existing in great numbers, and should be included in land subdivisions only if block organizations may hold an easement and operate the playgrounds according to some definitely constituted system. The experiment with interior park and play areas at Radburn, N. J., — like Sunnyside, an undertaking of the City Housing Corporation — will be watched with the greatest attention. Of a different type, the small block *parks* of Philadelphia, publicly maintained, are accounted a success.

The question has been frequently raised as to whether cities should conduct tourist camps either in park lands or on special sites. Although this is largely a matter of park policy and of municipal administration, nevertheless it was thought worth while in the course of the study tour to put the question as to success or failure of municipal tourist camps in the cities visited. The tendency would appear to be slightly toward leaving provision for transient tourists to private enterprise, — which is the policy favored by the Playground and Recreation Association of America, — although a very considerable number of successful municipal camps were reported.

The location of airports in park property and the acquisition of lands under the jurisdiction of park departments to be used as airports are questions on which discussion will be deferred until the completion of the special airport study mentioned in Chapter XIV. Neither tourist camps nor airports are integral parts of municipal park and recreation systems, and the desirability of having these related to parks will depend on extraneous factors peculiar to local conditions.

Recreational Waterfronts

Very few American cities made any early reservation of seafronts, stream banks, or lake shores for recreational use: Battery Park in New York, Golden Gate Park in San Francisco, and the Chicago South Parks are well known earlier examples. Shores of all kinds from those of swampy creeks to ocean fronts have been ruthlessly utilized for commerce and industry, perhaps defiled by sewage, or, when no profitable economic use presented itself to private enterprise, allowed to degenerate into unsightly dumps. In the case of naturally beautiful shores, frequently private owners, as in Newport, R. I., have acquired large holdings almost to the exclusion of public use.

The unsuitability of many shores and streams for residential or commercial use often makes them cheap to acquire, while after reclamation and development the returns in civic beauty and public enjoyment are proportionately larger than from almost any other kind of recreation area.

When we consider the large number of beautiful waterfront developments in European cities, we realize that in America we are just on the threshold of developing the myriad opportunities presented to the great majority of our cities. Thirty years ago experience had to be studied almost wholly abroad; to-day perhaps twenty-five American cities can offer some more or less distinguished contribution.

For the development of public sea beaches few cities can surpass Boston and its Metropolitan District, with miles of natural bathing beaches and connecting shore drives. The studies of the Regional Plan of New York have shown the inadequacy of sea bathing opportunities for New York's vast population in spite of several large beaches such as Coney Island and Far Rockaway. In the Los Angeles Region the beach development is only beginning; San Francisco's shore boulevards and beaches represent a substantial part of larger undertakings. The focal points of the Glynn County, Ga., park system are the fine beaches being preserved for the people. Mobile, Ala., has an immense pleasure bay enterprise afoot, perhaps stimulated by the ambitious and interesting Florida achievements as at Miami, St. Petersburg, and Tampa. Corpus Christi, Tex., has a scheme comparable to Mobile's for bayfront improvement. Of cities on large arms of the ocean, Seattle has ten bathing beaches and thirty miles of scenic drives, while Providence, R. I., can show some interesting developments on a smaller scale. Charleston,

S. C., has undertaken to extend a successful waterfront boulevard; St. Augustine, Fla., has a dignified architectural water approach. Like San Francisco, Tacoma has a great landscape park overlooking the ocean, one of the few naturalistic treatments of seafronts.

In lakefront development Chicago is preëminent. Beaches, lagoons, an outer island, and a magnificent shore drive are part of the scheme toward which much has already been accomplished. Milwaukee has secured riparian rights the entire length of the city to carry out a scheme on lines similar to Chicago. Cleveland also has a somewhat comparable scheme, in extending a lagoon in front of both private property and parks. In New Orleans the Levee Board's Lake Pontchartrain dredging project includes plans for a great waterfront park on made land, back of which sites for hotels and residences are to be sold to finance the whole enterprise. Duluth has a large amount of city-owned waterfront on lake and bay, some of which is already developed for public drives, but the cold water does not invite the creation of bathing beaches. The beautiful Belle Isle Park in Detroit has not been followed by supplementary waterfront development for which the city has long been striving. Madison, Wis., a city of lakes, owns 40 per cent of the water frontage within the city limits, although most of the lakefront land outside the city is privately owned. Among small cities Kenosha, Wis., has an attractive lakefront park near the heart of the city.

The Palisades Inter-state Park is one of America's finest riverfront reservations. River bluff parks and drives at Omaha and Council Bluffs, St. Paul, and Minneapolis, take advantage of striking natural scenery. The acquirement of river bluff property near the center of St. Paul will allow a widened main thoroughfare to be combined with park development somewhat comparable to the Bluff Park in Memphis. The beginning of the riverfront park in Portland, Ore., close to the shopping district, promises to stimulate interest in more adequate protection of the city's very great opportunities for recreational waterfronts, suggested in the recent report (1929) of the City Planning Commission on park conditions. The City Plan Commission of Fort Wayne, Ind., has recently issued a report on the opportunities for the continuous regional park development of its three rivers. The proposals in Wisconsin for state zoning of river valleys, mentioned in Chapter V, would preserve the character of streams in large rural areas. The Niagara reservation is unique, and related by regional planning to highway and park systems on both sides of the international border. Rochester has a fine series

© Chicago Aerial Survey Company

Courtesy of Chicago Plan Commission

CHICAGO LAKEFRONT: GRANT PARK AND ISLAND

The Lagoons in process of development — Lincoln Park in the distance to the north

of river parks, and the splendid new waterfront parks and parkways of the National Capital are an earnest of greater developments planned at Great Falls and other outlying parts of the region. In a flat flood-threatened region, the work of Wichita in securing extensive river shores for future development is particularly interesting.

The fine riverfront park of Harrisburg is one of the earlier American achievements in waterfront embellishment, the city owning practically the entire waterfront on one shore, although unfortunately the other shore is unprotected. The ornamental waterfront of Des Moines is part of a civic center scheme and related to proposed park development of river frontage already acquired. The Charles River Basin in Boston, already an adornment to the city, is in process of further improvement to promote more active public use of the water area, as in Washington. Philadelphia has large projects for Schuylkill shore improvement, linked to present fine river drives. The stupendous riverfront project of St. Louis is of a more monumental character, involving the replatting of a whole district.

Some further notes on recreational waterfront developments — parks, drives, promenades, beaches — will be found in the Appendix. There is need for a special monograph on the subject of recreational waterfronts, to which cities with neglected opportunities may turn for suggestions.* Such reports as those of the Bronx River Parkway Commission with their effective "before and after" pictures, showing what can be done with neglected stream valleys, are among our most important city planning documents.

Observed Effect of Park Areas on Property Values

The decade following the initial construction of the New York Central Park saw an enormous increase in the values of lands in central and upper Manhattan, much of which was justly attributable directly to the creation of the park and which was proudly set forth in the early reports of the park commissioners.† These reports offer the first of a series of economic arguments for parks which have recently culminated in the spectacular figures given by the Westchester County park commissioners, as stimulating to-day as were the Central Park figures published in New York almost sixty years ago.

* The studies of the Regional Plan of New York (Messrs. Williams and Bassett) relating to foreshore and rights in land under navigable waters (published in Survey Volume V) suggest to other cities and regions means of enlarging recreational opportunities.

† See Central Park Report for 1860, and also Chapter XII, Olmsted and Kimball, *Central Park.*

In the Recreation volume of the Regional Survey of New York and its Environs and also in the volume devoted to Population, Land Values, and Government, analyses are given of increases in property values due to parks and parkways in the New York Region and of the effect which playgrounds have had on adjoining land.* The Essex County parks between 1905 and 1916 caused the property immediately adjoining to increase in value six times over, as against an increase of only double for other land in the same taxing districts; and although no more recent figures have been compiled for Essex County parks there has been continued evidence of this favorable effect. The influence of one of the Union County parks in the last five years was analyzed by the public accountants for the Union County Park Commission † and was found to have caused adjoining property to increase in value almost ten times that of other property in the communities affected. In Westchester County total assessed valuations have jumped almost 100 per cent in the five years since the beginning of the park system, as against an annual increase of only 8 to 10 per cent in the preceding years. In the Minneapolis Park Report for 1925, it is stated that the total investment of some $15,000,000 under the direction of the Park Board over a period of forty-two years has produced an increase in property values several times the total expenditure, so that the park system of Minneapolis, like the Central Park of New York, has in effect cost the city nothing. The Westchester County parks will soon reach the happy state of costing nothing for maintenance, since rentals and concessions are fast equalling operating costs, and mounting land values are writing off capital investment at a gratifying rate.

When the question was asked in the cities visited during the field study as to whether parks had been found to increase property values, it was found in nearly fifty cities that the answer was affirmative, even though no figures comparable to the analyses in the New York Region had been compiled anywhere. All the answers to the questions as to effect of public open spaces (parks, parkways, and playgrounds) will be found in the Appendix. It should be noted here that in some cities park lands acquired were so remote from present residential areas that effects are not yet apparent, and in others park developments are almost too recent to draw conclusions.

Parkways, also, are almost unanimously considered to increase values

* Recreation Volume, pp. 45 ff.; Population Volume, pp. 176 ff.
† See Union County Park Report published 1928.

especially where, as in the nearer parts of the New York region and in Kansas City, Mo., apartments are attracted. It is stated that the average increase in value along the Bronx River Parkway in Westchester County during the ten years following the purchase of the land was something like 800 per cent.

On the other hand, the effect of playgrounds on property values is found to be highly debatable. The Regional Plan of New York's investigation of typical playgrounds in Manhattan and Brooklyn* indicated that "this type of open space does not cause any retardation in the natural rise of land values and in some instances may be responsible for a considerable increase in value." In Hartford, it was pointed out that while playgrounds may drive out people without children, the property becomes more desirable to those with children. In Grand Rapids large playgrounds are found to enhance values while small ones are detrimental, and this probably indicated the key to the situation. When playgrounds are combined with neighborhood parks, properly screened by boundary plantations, objections would seem to be minimized, as was found to be the case in Norfolk, Va. In St. Paul, depreciation of property values is attributed largely to the lack of screening. In Pittsburgh, abutting values are found to be depreciated but values of properties some distance away are increased; in Tulsa, Okla., surrounding values are reported increased. There appears to be no reason why the difficulties which small, noise-producing unplanted areas have caused may not be overcome, except where land values are prohibitive, by the future design of playgrounds in sufficiently large units surrounded by park-like plantings.

Protection of Parks in the City Plan

Public parks have been held by the courts † and by public opinion to be an inviolable trust. Unlike land acquired for schools or other public buildings, they cannot be sold by a municipality: land once accepted or created a park, must remain a park, except by special act of legislature. Nevertheless by a nibbling process, — placing buildings in parks other than those necessary for park recreational use and allowing street traffic to cut enlarged or even new roads through park lands, — the primary uses for which parks were created may be nullified or diminished. It is pleasant to report that in the cities visited during our field study this nibbling process is found to be going on only to a very slight extent.

* Survey Volume V, pp. 177–9.

† See Central Park Arsenal decision. June 11, 1920. 229 N. Y. 248.

There appears to be a very general appreciation of the sacredness of park land.

To relieve traffic congestion there has been some trimming off around the borders of parks and some cutting through park properties with major thoroughfares, in a few cases with grade separations. If separations may be effected, as in the original design of Central Park, New York, in 1858, it may be possible to eliminate the odious situation which permits heavy traffic to endanger life and disturb park atmosphere. In some cities, as in Fort Worth, traffic encroachments are now threatening parks, and to the citizens of these cities many of the words which the elder Olmsted addressed to a generation before the motor age are equally potent.*

A comprehensive city plan will itself prove the best protection of public parks, since the orderly arrangement of community land uses under zoning and the appropriate relationship of a system of major thoroughfares to other elements tend to minimize the encroachment of one use on any other.

In only one city was any public building reported to have been recently allowed to usurp a public park. The words of the Central Park Arsenal decision just referred to should not be forgotten: "A park is a pleasure ground set apart for recreation of the public, to promote its health and enjoyment. It need not and should not be a mere field or open space, but no objects, however worthy, such as court houses and school houses, which have no connection with park purposes, should be permitted to encroach upon it without legislative authority plainly conferred." Parks have become so thoroughly essential to modern life that it is unlikely that a State Legislature would allow their destruction.

Whether our intense modern city civilization is to survive or not depends on complicated biological factors yet only vaguely understood. We do know, however, that open air and sunshine and opportunity to play are vital to community well-being. However profitable in dollars and cents parks have proved themselves through their favorable effect on land values, their greatest contribution has been an unmeasurable social one, — recognized in the sixties when Central Park first came into use, and confirmed a hundred times over every day in cities where a balanced system of rural and neighborhood parks gives each citizen, young and old, his meed of relaxation and healthful exercise.

* See the Chapter "Encroachments" in *Central Park*, edited by Olmsted and Kimball.

CHAPTER XVI

CIVIC CENTERS AND THE CITY'S APPEARANCE

The Bugbear of the "City Beautiful"

THE city planning movement in the United States resulting from the Chicago World's Fair of 1893 took the "City Beautiful" as its slogan.* Three of the direct offspring of this movement — the revival of the Plan of Washington, the creation of the Plan of Chicago, and the design of the Fairmount Parkway in Philadelphia — have been frankly and boldly successful: they are proof that the word "beauty" is a living, practical factor in civic development. The deterrent effect from the mention of "beauty" or "beautiful" above a whisper in city plans has come about not because beauty itself is an unnecessary luxury but because the kinds of beauty in some of the elaborate architectural schemes proposed before the Great War were neither appropriate to civic needs nor capable of realization from civic purses. The slogan was invoked to support not only sensible suggestions for the improvement of civic appearance but also flights of fallacious imagination. Business men were unwilling to buy a "city beautiful" scheme which appeared to be an expensive and stylish coat, covering but not curing a multitude of civic ills.

The communities of the United States have no need to be afraid — and very few of them are afraid — of the right kind of civic beauty. They desire to appear well before the world, even though they do not always know how to accomplish this. The general movement for better design in shops, in houses, and in furniture, has been paralleled in the effort of cities and towns to build worthy public buildings, erect monuments and memorials, install ornamental lighting, and line the streets with shade trees. The time is ripe for comprehensive city plans to relate these details to a convenient and effective organic structure, which through its own pervading orderliness achieves a fundamental beauty never to be attained through superficial embellishment.

* The sequential relation of earlier and later phases of planning history is discussed in Chapter I.

Why a Civic Center?

If considerations of efficiency in the conduct of public business did not suggest that public buildings should be grouped, the greater effect of dignity and importance secured by an orderly group over single buildings scattered about haphazard would be a sufficient justification for a civic center. It is fitting that somewhere in the city there should be a visible manifestation of community government, — an expression of civic pride and power.

Civic centers may be not only governmental but cultural or educational, like the Detroit "center of art and letters" or the series of buildings framing the Fairmount Parkway in Philadelphia. They may be central groups of buildings serving the whole city, or local community centers comprising perhaps the branch library, fire station, and neighborhood shops. Frequently semi-public buildings form important parts of civic centers, helping to support and complete the architectural composition.

A city without some kind of civic center gives to the visitor the kind of impression which would be made by a man without a face. There is nothing to express the soul of the city: it appears to be a jumble of streets and buildings. When our ancestors built the church and town house about the village green, or set the courthouse on a dignified square, they carried out a tradition of seemliness inherited from Europe. George Washington and Thomas Jefferson expressed this for the nation in the plan for the National Capital, which suggests to other American cities not an emulation in scale and style but a lesson in architectural appropriateness and visible expression of civic ideals.

Civic Centers in Comprehensive Plans

Few civic centers are now being carried out as originally planned. The San Francisco civic center, one of the most impressive to be seen in this country, was not built on the site shown in the Burnham plan, although the early plan inspired the city to have the later plan prepared and carried out. The Group Plan of 1903 for Cleveland by Brunner, Carrère and Hastings has been carried out in essence, although the changed location of the Union Station leaves the development between the square and the lakefront still undecided. The idea of a civic center for Denver, started by Charles Mulford Robinson in 1906, was crystallized in the

Courtesy of M. M. O'Shaughnessy, City Engineer, San Francisco

1928

CIVIC CENTER, SAN FRANCISCO

Bennett plan accepted in 1917; with several buildings now constructed, it is one of the most distinguished examples, peculiarly expressive of the civic spirit of Denver. The municipal group of Springfield, Mass., planned by Helmle & Corbett and perhaps the most notable example in a city of under 200,000, was constructed over a dozen years ago, — one of the few civic centers that could be shown in *City Planning Progress, 1917* in a photograph rather than a project sketch. This Springfield municipal group was completed before the city undertook the preparation of a comprehensive plan, in which various adjustments — not yet made — were proposed to enhance the visual effect of the tower and buildings.

A monumental civic center on the riverfront was suggested for Des Moines by Charles Mulford Robinson to be developed from an existing nucleus; and, as in Springfield, enough had been accomplished by 1917 to show an impressive and dignified photograph in *City Planning Progress.* Additions to the civic center connecting it with the state capitol group are proposed in the comprehensive city plan in course of preparation. The Brunner capitol group plan for Harrisburg is being adhered to, but the effect has been marred by tall buildings built about the edge of the grounds, since Harrisburg is unprotected by zoning.

The Milwaukee civic center, after long study, is well under way, half the needed land having been already acquired. In Madison, Wis., a civic center development based largely on the early Nolen plan is now authorized by ordinance but definite plans are not yet drawn. The Duluth civic center, following the Burnham plan of 1908, has been largely carried out, although the scheme — made independently of a general city plan — is now found to block an important traffic artery. The Buffalo civic center site at Niagara Square is fixed upon and city hall plans are now being prepared, but no public buildings are yet constructed on the square.

The new towered city hall has been completed as the dominant unit of the Los Angeles civic center, which, carefully studied, represents collaboration by both city and regional planning commissions as to its relation to other elements of the community plan. The St. Louis civic center, called the Plaza, is perhaps the most notable example of thorough-going relationship to comprehensive planning. Some $15,000,000 of bonds were authorized (in the famous 1923 issue) for Plaza development, and already the courthouse and harmonious semi-public buildings give promise of the ultimate dignity of the scheme. The Toledo civic center, part of the comprehensive plan, is being developed, with the Safety Building as the first unit.

Among small cities, the civic center of Kenosha, Wis., is notable because it forms part of a comprehensive plan and because of steady progress in its realization. Kenosha has already spent considerably over $3,000,000 and has secured federal and railroad coöperation in making the group of buildings a real community center. In Ponca City, Okla., the nucleus of a civic group exists, which is to be further developed as part of the comprehensive city plan.

The Memorial Plaza of Baltimore, dedicated in 1927, initiated what should grow to be a worthy civic center. The great War Memorial Plaza of Indianapolis is a splendid manifestation of civic pride; the state and county have combined with the city to finance and construct the plaza and buildings. In Lincoln, Neb., the state and city through a State Capitol Planning Commission are also combining in preparing plans for the proper setting of the famous new capitol building, and studying its relation to the University of Nebraska and other public buildings. The railroads in Providence, R. I., have been a bar to the really effectiver development of the civic center largely constructed, but entirely cut off from the state capitol grounds.

Wilmington, Del., has undertaken a civic center dominated by an impressive city-county building. Half the land for the civic center for Houston, Tex., a part of the comprehensive plan, has been acquired. In Norfolk, Va., civic center plans have given way for the prior development of a cultural center proposed in the city plan. It is likely that the civic center of Camden, N. J., will develop as an educational center, since the new city hall is not being constructed as a unit of the civic center as originally expected, but has been grouped with the county courthouse in the business center.

Many other cities have civic centers under consideration as parts of city planning studies. Portland, Ore., has recent studies by the Oregon Chapter of the American Institute of Architects, based on the early Bennett plan, for both educational and civic centers. The recent plans for a joint civic center for Lafayette and West Lafayette, Ind., look possible of accomplishment. A modification of the civic center as proposed in the city plan has been adopted by vote of the people in San Diego and now awaits state legislative approval of its waterfront location. The most splendid civic center proposal now pending is the municipal group for Washington, D. C., for which a plan has been prepared by the Municipal Architect and the National Capital Park and Planning Commission as part of the new Pennsylvania Avenue development.

Some further notes on civic centers, as initiated or proposed in the cities visited during the field study, will be found in the Appendix. There are a good many civic center plans of earlier days that have failed of realization, through being dropped from lack of interest or through failure of state, city, or county to coöperate. In Wichita, Kan., the recent location of the new post office, away from the civic center proposed in the comprehensive city plan, has practically destroyed the scheme.

Elements of Civic Centers

It could not be expected that a civic center would be composed only of municipal buildings. As we have just seen in reviewing the civic centers actually under way, federal, state, and county buildings must be relied on to complete schemes which, while often initiated by the city, must ultimately represent a high degree of coöperation. In contrast to the Wichita failure, the recent success of St. Louis in securing the new federal building in the desired location on the Plaza is an unparalleled example of the force of a city plan. The Postmaster-General's letter confirming the site said: "It is my belief that when the citizens of any of our great American cities evolve a definite plan for rebuilding their city, in whole or in part, and contribute their own money generously to the enterprise, the Federal Government should coöperate to the fullest extent consistent with the public interest." In the Appendix we give some brief notes as to federal and state buildings forming parts of civic centers.

Municipal buildings now existing in the civic centers of the cities visited include city halls, halls of records, auditoriums, public libraries, public schools, police and fire stations, courthouses, and art museums. The Greek theater in Denver is unique. No city beside Asheville, N. C., has so far included a city market; but in Camden, N. J., the chamber of commerce is sponsoring the location of a permanent farmers' market adjoining the civic center site. An armory has been built as part of the Cleveland scheme. Memorials may be a principal or subsidiary feature, as in Indianapolis, Baltimore, and Denver. It is expected that some day in Kansas City, Mo., the Liberty Memorial may be used as the focal point of a civic center. Although the Fairmount Parkway in Philadelphia is hardly a civic center as the term is usually employed, the dominance of the art museum and the number of public buildings to be included in the great axial composition really create an elongated center from museum to city hall.

County buildings have been built or authorized as units of civic centers

in Albany, N. Y., Asheville, N. C., Cleveland, Denver, Kenosha, Wis., and Toledo; in Milwaukee and Wilmington, Del., there are joint city-county buildings; in Memphis the county courthouse forms one of the buildings, adjacent but not composed as a group, in the so-called civic center, — an example suggesting by contrast the far greater effect to be secured by proper setting.

Semi-public buildings, such as the Chamber of Commerce in Cleveland, or a hotel as in Buffalo and Providence, or dignified business buildings as in Wilmington, Del., are appropriately located in the civic center; and civic center plans in many cities indicate sites available for such purposes. In local neighborhood centers, groups of shops or apartments are usually an integral part of the scheme, well exemplified in the plans for towns along the Boston Post Road, such as Mamaroneck or Rye, N. Y., or in the entrance squares of residential suburbs, such as Forest Hills, L. I., or the Country Club District of Kansas City.

Outside of centers of suburban towns, few civic center schemes include a railroad station. In the Cleveland group plan, the new Union Terminal has been actually built at one corner, not in any axial relation to the scheme but serving to increase its importance. The civic center plan of Kenosha counts on an expected railroad station, and the station at Providence faces the municipal square.

Among the cities visited, Des Moines can show the most developed use of bridges and a waterfront as elements in a civic center plan. Harrisburg offers an impressive example of a state capitol architecturally related to a fine riverfront park. The island civic center of Cedar Rapids, Ia., is another distinguished example of a splendid riverside composition, often found abroad but seldom in this country.

Architectural Aspects of Civic Centers

The pictured harmony of buildings in a single style of architecture surrounding a monumental square is by no means often realized in civic centers as constructed. The city hall in the civic center of Asheville, N. C., was followed by a county building in an incongruous architectural style, so that the anticipated effect of unity in twin buildings has been entirely lost. On the other hand, the classic style of buildings in the civic centers of Cleveland, San Francisco, and Denver shows how largely architectural harmony contributes to the total impressiveness of the composition. The civic center of Pasadena, Cal., is harmonious and expressive of the dignity and charm of the city. A unified Spanish style will char-

Courtesy of L. F. Eppich, Denver

CIVIC CENTER, DENVER

Looking west from dome of State Capitol

acterize the civic center of Houston, Tex., but the civic center of the smaller Southwestern community of Ponca City loses by having only the municipal building Spanish, while the others are nondescript.

Appropriateness to the character of the community is the first requisite of style and form in a civic center. The classic style of public buildings in the City of Washington surrounding broad decorated plazas, may be appropriate for other large cities; but often for a small community, as in New England or California or Florida, the dignified or picturesque styles of architecture cherished from colonial days are infinitely more effective and express the life of the community more adequately.

The centralization of public buildings alone does not make a real civic center. In Colorado Springs although the civic buildings are built near together, there are intervening garages and other miscellaneous structures. In Memphis, El Paso, New Bedford, Mass., Westerly, R. I., and Charleston, S. C., one may see public buildings built in juxtaposition, but not architecturally related; and from such examples, in comparison with San Francisco or Kenosha, the value of composition and designed grouping may be keenly appreciated. Ample setting, foregounds over which good views of buildings may be had, architectural details in terraces, fountains, or monuments, however simple, contribute to the unity and dignity of a building group. The scale of elements in the civic center composition should be consistent and in accord with the size and importance of the community. The unity of effect of the civic center will usually gain by a feeling of enclosure, which may be strongly experienced when standing within the San Francisco group. The Denver civic center counts on the Rocky mountains to close the main vista.

Communities should remember in considering the feasibility of a civic center that a tremendously greater amount of effect for the same money may be secured by arranging appropriate and well designed buildings in a group than by scattering buildings, individually just as expensive, where perhaps they cannot even be well seen, much less counted on to produce a cumulative effect of civic importance and efficiency.

The favorable influence of civic centers on the appearance of the surrounding district has been especially remarked in Cleveland, Milwaukee, Toledo, and Kenosha. It is fitting that the city should lead the way in encouraging good architecture, reflected in commercial and private buildings.

The full esthetic value of a civic center cannot be realized unless some measure of control over the surroundings can be exercised through zoning

and other restrictions. In Baltimore excess purchases of land in the Memorial Plaza will undoubtedly enable the city to sell the remnants with proper restrictions. The Legislature of Indiana intended to grant to the War Memorial Trustees of Indianapolis some control under the police power over surrounding buildings, but the power is considered inadequate and is not being exercised. The Plaza Commission of St. Louis is exercising art jury powers over the development surrounding the Plaza. An effort is being made in Duluth to get all property owners within a block's radius of the civic center to agree that no construction will take place until approved by an art committee formed of these owners and the governmental agencies involved. Architectural control, discussed later in the chapter, would seem a reasonable measure for the protection of the public's investment in an exemplification of civic art.

Economic Aspects of Civic Centers

There is little information available regarding the economic results of constructed civic centers, and this small amount is conflicting. In Milwaukee, real estate operators consider that the civic center is blocking business development in the surrounding area, and the attitude in Portland, Ore., to the civic center plan reflects the same apprehension. In San Francisco it was reported that surrounding property values have been greatly reduced, due to the gap created. On the other hand, the Plaza development in St. Louis and the Group Plan in Cleveland have greatly increased surrounding values; in Kenosha the city assessor reported an increase of from 50 to 120 per cent within a block from the civic center. The beginning of the Houston civic center has produced an enormous enhancement of values. In Camden, N. J., where the city purchased excess land with a view of re-sale, the city itself has made a direct substantial profit from the first large plot sold as well as from the increased taxable values in the surrounding area. In Denver, merchants consider the limitation of business expansion in that direction by the civic center desirable and conducive to compact commercial development.

It was not possible to study the factors which caused these diverse effects on property values, but it might be assumed that if the civic center is properly located in the city plan and particularly if it includes sites for semi-public or commercial buildings in its total design, it will create far more values than it destroys. The St. Louis Plaza will replace a very poor type of development with a splendid group, which even in its initial stages is attracting a highly desirable surrounding development. In

smaller communities, an inviting civic center would normally raise the general standard of development and attract residents, with a corresponding general increase in property values.

Individuality of Cities

In a very recent paper before the National Conference on City Planning by Mr. George B. Ford, "What Makes the 'City Beautiful,'" he calls the "typical American city" utterly lacking in personality, — "typical only in so far as it is rubber-stamped, — just another standardized model struck from the same old die."

In contrast to St. Augustine, San Antonio, Santa Barbara, Charleston, S. C., New Orleans, Boston, Newport, R. I., or Portsmouth, N. H., are the dozens of cities to which one might be brought blindfolded and then turned loose with open eyes to try to discover any character which would identify the region or inhabitants. In the prosperous newer cities of Texas, such as Dallas and Fort Worth, one is appalled by the repetition of characterless buildings in the business district which might be found in any second-rate city of the East.

During the field study it was an amusing game to try to purchase in the cities visited some distinctive picture postcards. Many cities could not offer a single view that might not be anywhere, — and city streets with incipient skyscrapers proved the most popular subject. No doubt it is entirely unfair to judge the individuality of a city by its postcards, but is it quite true that those cities which have an individual flavor or even distinctive features which leaven an otherwise mediocre loaf were almost invariably able to offer cards which were more worth sending than "Main Street" or the biggest business block.

Such epithets as "The City of Roses" for Portland, Ore., or the "Azalea City" for which several southern cities are now working, suggest a recognition of individuality to be created, in addition to scenic distinctiveness or historic individuality consciously preserved in those cities fortunate enough to possess it.

In the Southwest, Albuquerque is encouraging Pueblo architecture in new buildings. The Old Santa Fe Association is active in preserving the individuality of Santa Fe and perpetuating the old Spanish and Pueblo traditions; moreover the desire to preserve the narrow, crooked Spanish streets has so far yielded little to the growing demands of modern traffic, with which later some compromise must be worked out. The city plan for New Orleans proposes a by-passing of traffic around the old French

quarter to avoid destroying its charm. In San Antonio, a patriotic society (The Daughters of the Texas Republic) has saved nearly all the historic features, which will undoubtedly be treasured in the schemes of the newly appointed city planning commission. The Community Arts Association of Santa Barbara inspired perhaps the most distinguished example of the preservation and enhancement of civic individuality. The endowed restoration of Williamsburg, the colonial capital of Virginia, will set a new standard in completeness of historic style.

The city plans which have been made for Newport, R. I., although not carried out, have helped the Newport Improvement Association in awakening citizens to the need of preserving the characteristic atmosphere of Newport. St. Augustine has maintained its historic flavor, and some newer Florida cities are encouraging the Spanish tradition. The plan for Glynn County, Ga., attempts to preserve the historic landmarks of which the region is full.

Many city planning boards throughout the country are impressed with the desirability of preserving distinctive natural features, such as the bayous in the Houston plan. Denver's mountain parks represent the appreciation of Denver citizens for the magnificent surrounding scenery. In the regional planning studies of Philadelphia, there is an avowed aim to preserve the individuality of communities within the region, many of which are distinctive and charming, both topographically and historically.

In the writings which helped to awaken American cities to a consciousness of their poor and mean appearance, Charles Mulford Robinson stressed the desirability of attractive entrances and approaches by land and water; now, two decades later, Mr. George B. Ford is recalling these same considerations * and adding the air approach. For the first time, visitors are enabled to gain an impression of the plan of the city — the "mosaic" — which may be even more beautiful than a striking silhouette, — as for instance, New York seen from a harbor, — or the splendor of an entrance square, of which the Union Station Plaza in Washington offers almost the only satisfactory American example. The dignified railroad entrance to our National Capital is later to be rivaled by portal plazas proposed for points where main highways cross the District line.

Individuality in the silhouette of the city, or in its plan as seen from the air, may seem nebulous considerations in this business age, but whatever, with due regard to functional planning, can be done to help the community to express itself in beautiful and orderly forms, will awaken a

* Especially in "Architecture and the New City," in *City Planning*, Jan., 1929.

corresponding civic pride and fuse materialistic elements into a characteristic civic personality.

Improving the City's Appearance

In view of the prevalent shabbiness and banality, it was appropriate that many of the earliest reports made to cities, at the beginning of the city planning movement, should deal largely with details of improvement, — with suggestions for well-designed bridges and improved waterfronts, for civic statuary and ornamental lighting, for better street design, for shade trees and planting strips along streets, for removal of overhead wires, street encroachments, and unsightly signs, and for the beautification of public and private grounds. Similar suggestions have been made in many more recent comprehensive plan reports, and many of the recommendations have resulted in substantial improvements. One city — Evansville, Ind. — is distinguished by a special report "The City's Appearance," the third of a series of city planning studies, issued by the Evansville City Plan Commission in 1927; and this has been followed by Beautification Contests which have really aroused public interest.

There is not space in this book to discuss in any detail the many ways in which cities have achieved in the last twenty-five years a far higher average of attractiveness and order than the pictures of the latter part of the nineteenth century can show. The work of the American Civic Association and the American Federation of Arts has borne good fruit.

Many cities have regular programs for putting wires underground, so many miles each year, and a few cities, notably Washington, are largely freed from overhead wires. Some notes on this subject will be found in the Appendix.

In Philadelphia and New York civic art societies have worked for the removal of overhanging signs and other street encroachments. In Buffalo and Kansas City, Mo., on certain streets overhanging signs are forbidden by ordinance secured through coöperation of merchants. In Denver and Rochester there is art commission control of any overhanging signs permitted. In contrast, Des Moines or Duluth reveals very bad conglomerations of signs and encroachments, which detract seriously from the appearance of the city.

Inappropriately placed billboards disfigure a large number of cities and their suburban or rural approaches. In Little Rock billboards face the city hall. In Charleston, S. C., and Savannah, Ga., the disfigurement of land adjoining parks and parkways is a symptom of a general

unfortunate superabundance of billboards. In a considerable number of cities, however, the regulations imposed by zoning and the organized movement led by the National Committee for the Restriction of Outdoor Advertising and the American Civic Association, are resulting in the appropriate location of billboards in business districts, and in the improved character and setting of the signs, for which a higher standard is now recommended by the billboard interests themselves. The indiscriminate location of hot-dog stands and roadside service stations along highway entrances to cities is just as destructive of scenery and roadside orderliness as the billboard, and should also be controlled by zoning. Long before advertisers and vendors are convinced by persuasion that there is a net loss to the community by the spoliation of rural or suburban scenery bordering public improvements, it is probable that public opinion will have forced the extension of the police power to prevent this misuse of public assets for private ends.

Ornamental lighting, adjusted to the needs of business and residential districts, is becoming a municipal necessity. The files of the *American City Magazine* contain dozens of articles showing the improved types installed all over the country. The project of St. Louis, reported during the field study, is perhaps the most notable in the country: there the entire city is to be provided with ornamental lighting, one type for commercial streets, one for major thoroughfares, and one for minor streets.

The adornment of the city with monuments, statuary, and fountains, is particularly exemplified in Philadelphia, Baltimore, Washington, Kansas City, Mo., and Savannah. Civic fountains in Cincinnati, Denver, Detroit, and Chicago are notable. The replica of the Parthenon at Nashville is a unique expression of civic pride. Some cities of importance visited during the study, however, have scarcely a monument or statue of real artistic merit and some are almost without sculptural decoration. The American Federation of Arts and the *American City Magazine* have an opportunity to teach many communities the appropriate use and the inspiration of really good memorials, statues, and fountains.

Through collaboration of architects with engineers, the design of bridges has been substantially improved in the last decades: long spans such as the Buffalo Peace Bridge, the Philadelphia-Camden Delaware River Bridge, or the new Hudson River bridge from Fort Washington to Fort Lee, the Arlington Memorial Bridge in Washington, and numerous bridges of lesser length, as in Charleston, S. C., Harrisburg, Minneapolis, San Diego, or Tacoma. Although it is on essential good design

AN ATTRACTIVE
EVANSVILLE
PUBLIC BUILDINGS
PARKS
PRIVATE BUILDINGS & GROUNDS
BACK YARD GARDENS
HOUSES SET BACK FROM STREET
NO POLES OR WIRES
TREE SPACE RESERVED
ATTRACTIVE CURB CORNERS
SIDEWALKS BACK FROM CURB
CURVED STREETS ARE PREFERABLE
ANGLES WITH CURVES
MAINTENANCE
ATTRACTIVE STREETS
THINGS SEEN FROM STREET
STREET TREES
STREET DESIGN
PRIVATE BUILDINGS & GROUNDS
PUBLIC BUILDINGS & GROUNDS
PUBLIC PARKS & OPEN SPACES
FOUNTAINS & MONUMENTS
POOL
TENNIS COURTS
RECREATION CENTER
REGULAR STREET CLEANING
CARE OF PRIVATE PROPERTY
CARE OF ALLEYS
CARE OF STREETS
CONSTRUCTION DETAILS
STREET TREES SYSTEMATICALLY PLANTED
STREET FURNITURE
PRIVATE BUILDINGS & GROUNDS
STREET TREES
STREET DESIGN
STREET FURNITURE
CONSTRUCTION DETAILS
PRIVATE BUILDINGS—HOMES—STORES & FACTORIES AND THEIR GROUNDS ARE MORE ABUNDANT THEN ANY OTHER PHYSICAL UNITS OF THE CITY. THE EFFECT OF THEIR APPEARANCE IS OBVIOUS
RESIDENCE DISTRICTS OCCUPY THREE QUARTERS OF THE CITY'S AREA—WITH SHADE TREES THEY BECOME LIVEABLE—WITHOUT THEY ARE BARREN & OPPRESSIVE
LOCAL RESIDENCE STREETS SHOULD BE RELATIVELY NARROW & FREQUENTLY CURVING—THEY THEN BECOME INTIMATE, HOME-LIKE, & PLEASING TO THE EYE
MAIN THOROFARES OR MAJOR STREETS MUST BE WIDE FOR THE SAKE OF TRAFFIC. THEY THEN ARE PLEASING IN APPEARANCE BECAUSE BUSINESS-LIKE & DIGNIFIED
LOGICAL STREET DESIGN RECOGNIZES THE PLACE OF EACH OF THESE TYPES IN THE STREET SYSTEM. A LARGE DEGREE OF ATTRACTIVENESS RESULTS FROM THIS BECAUSE OF VARIETY THROUGHOUT THE CITY AND A SENSE OF FITNESS OF EACH STREET FOR A DEFINITE PURPOSE
STREET LIGHT STANDARDS STREET NAME SIGNS & ALL OTHER FORMS OF STREET FURNITURE CONTRIBUTE A DEFINITE & CONSIDERABLE SHARE TOWARD THE EFFECT OF STREETS FOR GOOD OR BAD IN THE CITY'S APPEARANCE
SMOOTHLY ROUNDED CURB CORNERS—SMOOTH STREET & SIDEWALK INTERSECTIONS—CURVES IN PLACE OF ANGLES WHERE STREETS CHANGE DIRECTION—IN SHORT SUITABLE DETAILS OF CONSTRUCTION THROUGHOUT THE ENTIRE STREET SYSTEM ARE ESSENTIAL TO THE GOOD APPEARANCE OF THE CITY

Courtesy of Evansville City Plan Commission

From "The City's Appearance"

Report prepared for City Plan Commission by Harland Bartholomew & Associates

rather than external ornament that a bridge depends for its beauty, appropriate decoration of statuary or light standards may embellish the effect. In Dayton there are flower boxes about thirty feet apart on several bridges, — a delightful touch reminiscent of Europe.

The planting of city streets with trees — following the example set us by our colonial ancestors — is very generally appreciated as desirable for residential districts, but not sufficiently considered practical in business centers. Many fine trees have been unnecessarily removed in smaller cities which might have lent shade and attractiveness to dull-looking shopping streets. The street trees of the City of Washington set an example too little followed. The pride of Sacramento and Savannah in street trees is worthy of emulation. The pioneering work of Newark, N. J., in street tree planting and care has had a wide influence. Examples of well planted parkway entrances to cities, and of shaded residential streets with broad turf planting strips are too numerous to mention. It is interesting to record that the once glaring streets of Colorado Springs, for which Charles Mulford Robinson suggested planting strips twenty years ago, have now wide green strips on each side and numerous street trees.

In many cities the planting of shade trees has stimulated the improvement of home grounds, and this embellishment of external surroundings has been more or less coincident with the general raising of standards in many phases of domestic environment characteristic of the twentieth century. We may look for a considerable further interaction between the desire of home owners to have attractive private surroundings and the community desire to present a well-kept, orderly, inviting appearance to prospective investors or citizens.

Art Juries and Architectural Control

The public has a legal right to control the appearance and design of public structures and of private structures permitted in publicly-owned areas. This right has been exercised through art commissions or art juries, — for the federal government and national capital by the National Commission of Fine Arts, for some of the states as Massachusetts, Pennsylvania, or Virginia, by a state art commission, and for approximately a score of municipalities by a municipal art commission. Art commission functions as exercised by city planning commissions are discussed in Chapter III. Cleveland, Detroit, Minneapolis, Memphis, Oklahoma City, and Kenosha, Wis., are examples of planning commissions exercising control over public buildings, bridges, or statuary. It is considered

more satisfactory, however, in large cities to have a separate municipal art commission, which can include in its membership more representatives of the fine arts than would be feasible on a city planning commission, and which can devote detailed attention to the very considerable number of submissions required.

The published annual reports of the National Commission of Fine Arts, the Philadelphia Art Jury, and the Art Commission of the City of New York * reveal the measure of control which may be exercised negatively through the rejection of unsuitable monuments or sites, and positively through improvements in the design of all public structures, and many semi-public structures compulsorily or voluntarily submitted. Other cities which have art commissions with similar powers are Baltimore, Boston, Chicago, Denver, Kansas City, Los Angeles, Milwaukee, Pittsburgh, and St. Louis, while Rochester, N. Y., has an "art supervisor" in place of the previous commission. Baltimore and Boston limit the powers of their art commissions largely to control over monuments and works of art. The art commissions of New Haven, Salt Lake City, Seattle, and Portland, Ore.,† have only advisory powers. Of the art commissions with definite powers, the art commissions of Pittsburgh and Los Angeles are very active, controlling the design of all structures on public streets and grounds. The Art Commission of Kansas City which passes on public works of art was recently asked by the street railroad company to advise on the color of street cars. In Grand Rapids there is an unofficial body which advises on the design of bridges and public buildings. An architects' advisory committee for control of structures along the Central Parkway in Cincinnati has been initiated. An official art jury for Roanoke, Va., has been recently proposed.

The right of the community to control by legal regulations the design of private buildings has not yet been established in this country. As Mr. Frank B. Williams has pointed out in a paper "Esthetic Regulation in City Planning,"‡ until our Constitutions are amended "the police power cannot as yet be used for an esthetic purpose," although an esthetic purpose has been recognized by the courts as subsidiary to public welfare

* The Art Commission of New York, created in 1898, was the first in the country with power to pass on designs for public buildings as well as works of art.

† The unsatisfactory situation in Portland has caused the Portland City Club to make a somewhat incomplete study of art commission powers in the United States, summarized in its *Bulletin* for March 29, 1929. The dearth of compiled information on art commissions has suggested the desirability of amplifying the notes collected during the field study into a special study to be published later, in *City Planning*.

‡ *City Planning*, July, 1928.

purposes. The only instance in the United States* of a public art jury which operated to control private architecture may be found in Santa Barbara after the earthquake, where an official Board of Review for eight months passed on a sufficient number of buildings to fix the harmonious architectural character of the business district in the Old California Style and raise the standard of building all over the city. The ordinance creating this board was not repealed until some 2000 building permits had been passed on. The work of this board has been fully discussed by Mr. Charles H. Cheney in his papers on Architectural Control, before the National Conference on City Planning and elsewhere.

A very similar type of architectural control has just been undertaken in St. Charles, Ill. In the building code there is provision for appointing an architectural committee "created to pass upon the architectural design and arrangement of all buildings to be hereafter erected or altered." The phrase used in the code requiring a building to be "suitable in its neighborhood" recalls the language of the court in the famous case State *vs.* Houghton (Minn. 1920): "But it is not sufficient that the building is fit and proper standing alone; it should also fit in with surrounding structures to some degree."

In Winnetka, Ill., a species of architectural control over commercial structures has been exercised by the Zoning Commission in its dual capacity as Board of Appeals and Commission on Architecture. Nearly all of the twenty-five commercial structures erected in the last four years have asked for variances and the granting of these has been made conditional upon the adoption of suggested architectural changes. The other buildings were either satisfactory at first or were voluntarily or through persuasion altered to meet the board's requests.

In the City of Washington an Advisory Committee of Architects has acted voluntarily to suggest desirable changes in private buildings. A bill (not yet passed) was introduced into the last regular session of Congress requiring submission to the National Commission of Fine Arts of all plans for buildings fronting on or located within 200 feet of a public building or park, the bill proposing control over the height, exterior design, and construction of private as well as public buildings. Such a measure is necessary to protect the great investment of national funds in fine public buildings and other improvements from being hurt by mean or inappropriate private development such as that now disfiguring Penn-

* The City of Quebec in Canada has recently created a city planning commission with strong power to exercise architectural control over private building.

sylvania Avenue. The Art Jury of Philadelphia is using the power to control the design of buildings along the Fairmount Parkway given it by the ordinance restricting the location, size, and use of buildings within 200 feet of the Parkway. A few other Philadelphia parkways are somewhat protected by similar zoning restrictions, which prevent billboards but do not contain any provision for architectural control.

If the promotion of beauty in public structures is a public purpose, as Mr. Williams has clearly pointed out, the protection of beauty by regulative measures seems wholly reasonable and legal. And perhaps public opinion may go beyond this in the next few decades, — perhaps not as rapidly as Mr. Cheney would predict, — to induce the courts to recognize an extension of the police power to regulating private structures in all parts of the city not only as to use and height and area but also as to general form and design, when these affect the amenity of other private structures.

The precedent for architectural control is to be found in the art jury regulations of high-class subdivisions, notably Roland Park in Baltimore, St. Francis Wood in San Francisco, Palos Verdes near Los Angeles, and Rancho Santa Fé near San Diego. As Mr. Cheney has pointed out, many land subdivision developers have reserved the right to pass on plans but have not set up permanent machinery to continue the protective service after the withdrawal of the sales company. The operation of the Art Jury of Palos Verdes has attracted public attention because of the detailed nature of the restrictions and the leadership of the Art Jury in the esthetic development of the community.

Even if the principle of public control of private architecture should be in some measure established, it could and should never be expected to secure the refinement of detail and degree of beauty obtainable in the highest class of residential suburbs through restrictive covenants.* At the present time it is on restrictions in deeds — from land development companies to lot purchasers and rarely from cities selling off excess land surrounding public improvements — that we must look for architectural control, beyond the voluntary coöperation of citizens who see an economic value in harmonious development.

Civic Attractiveness Pays

In various ways through this chapter the commercial value of beauty has been suggested. Although all cities profit by being attractive, there

* See paper by Mr. Elvon Musick, National Conference on City Planning, 1927.

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Courtesy of J. T. Woolraf

FAIRMOUNT PARKWAY, PHILADELPHIA

New Art Museum in the foreground

are three types of communities in which positive beauty is peculiarly essential: health and pleasure resorts, residential towns and suburbs, capitals, and great metropolitan centers.

The resort cities of Florida and California have appreciated the money-attracting power of natural scenic and climatic advantages and of appropriate architecture, but very few have taken thorough-going measures to protect their charms from discordant elements. The Northern vacation resort regions such as the Berkshires in Massachusetts are tolerating a spread of cheap roadside development which cannot fail to result in the withdrawal of the best type of patronage. Those who would take a holiday or those who have retired from active participation in commercial life look for more than mediocrity in selecting their surroundings. Natural or created beauty is found to be the most potent factor in the prosperity of resort cities.

The financial success of restricted residential suburbs, such as Roland Park in Baltimore and the Country Club District of Kansas City, attests the high value which the public places on beauty in home neighborhoods. People with money to invest in purchasing homes, or money to spend in substantial rentals, have proved themselves willing to pay more for attractive surroundings. The contribution which zoning and platting control are making to the orderly appearance of residence districts is an undoubted factor in their greater attracting power and frequently their enhanced real estate values. In lower-cost districts the better spacing of dwellings secured through police power regulation makes for greater pride in use or ownership, and frequently for the decoration of the available space with planting. The real estate advertisements of the newspapers to-day reflect the paying quality of pleasing appearance.

Metropolitan cities cannot afford to be ugly. The movement to make Washington beautiful was based on a sincere desire for a worthy expression of national dignity, but it has resulted in great profit to the city from the spendings of tourists and from its increased attractiveness as a place of residence. The art museums of New York, Philadelphia, Detroit, Cleveland, and Toledo, the civic centers of San Francisco and Denver, the parks of Chicago, Boston, St. Louis, Minneapolis, Cincinnati, and Kansas City, the beautiful residential suburbs of Baltimore and Los Angeles, contribute to the metropolitan character which draws residents and visitors.

Commerce and industry have recognized their insufficiency in satisfying human needs, without accompanying manifestations of beauty. Since

the World's Fair of 1893 some of our cities have come a long way from the prevalent unsightliness of haphazard growth, but many of them are just beginning to learn the lesson that they can reap substantial benefits in economic productiveness and social development through achieving order and seeking beauty.

CHAPTER XVII

IT PAYS TO PLAN

Foresight or Regrets

CITY planning does pay, just as any other kind of reasonable foresight pays. Locking the door after the horse is stolen is neither sensible nor economical for the farmer; neither is it sensible for cities to wait until mutually inimical uses of land are all jumbled together, until buildings are crowded on the land without regard to public health or street capacity until streets are so congested that citizens are delayed and inconvenienced day after day, until fair opportunities for public parks and playgrounds are irretrievably closed by the haphazard spread of private enterprise.

Many cities undertaking planning, as we find in Chapter IX, regret the neglected opportunities now patent when foresight comes to be applied to areas still undeveloped. Regret can serve no useful purpose except to confirm the community in its determination henceforth to grow according to plan, and to help itself and other communities to avoid the same mistakes.

Losses from Lack of Planning

"Proofs of the difficulties which arise from neglect of the elementary principles of city growth are numerous and convincing." As Mr. Hoover pointed out in the foreword to the Department of Commerce City Planning Primer, "City planning is going on about us every day in our cities and towns. . . . The planning may be done bit by bit by private land owners and city officials, few of whom know, or can know, what the others are doing or have in mind." This is the kind of planning that has made for ugliness and waste. We can see it with our own eyes in thousands of communities.

In surveying the actual losses and wastes plainly apparent in American cities, we find that perhaps the most wanton of all have come from the *needless changes in uses of property* resulting in "blighted districts." The Zoning Primer of the Department of Commerce did not exaggerate in

stating six years ago that "dwellings worth in the aggregate millions of dollars for the purposes for which they were built, and physically fit to serve those purposes for many years to come, with a moderate investment in alterations and improvements, are thus annually abandoned to purposes for which they are not fit, or are left to stand practically idle. Expensive public services of water, gas, electricity, sewers, and transportation are maintained at great waste in order to get through the 'blighted district' to the more distant and newly fashionable location." The Regional Plan of New York has pointed out that cities are losing desirable citizens who emigrate to the suburbs, a situation which could be ameliorated by better zoning and the establishment of parks tending to produce high-class residential districts within the city limits. In New York a blighted business district was created by the mingling of industry with shopping in lower Fifth Avenue, which was one of the immediate stimuli to securing a comprehensive zoning ordinance for New York. Other outstanding examples are the great blighted district in St. Louis, now being rehabilitated, and the West End of Boston prior to the restoration of Beacon Hill.

Poor platting and housing resulting in slums, urban or suburban, have been responsible for enormous social and economical wastes. Few cities admit having slums, as revealed in recent nation-wide inquiries conducted on behalf of an improved housing proposal; but many cities have slums nevertheless. Some of the slums are congested in blighted central sections, and some are miserable agglomerations of shabby shacks on outlying land prematurely and unwisely platted. When the growing city engulfs these, replanning to attain any reasonable measure of sanitation and convenience involves the public treasury in excessive expense.

Traffic congestion has been the most loudly proclaimed cause of losses from lack of planning. The staggering figures, given by the Regional Plan of New York, of $500,000 per day on Manhattan Island alone, give some hint of the total annual losses suffered by the citizens of the whole United States. Bound up with money losses are the far more terrible losses of life resulting from traffic accidents partly attributable to dangerous defects in street plans.

Piecemeal construction of sewerage and drainage systems and piecemeal street openings account for large losses to public treasuries, discoverable in many cities.

Scattering of industries resulting in expensive haulage raises the cost of living to the consumer and of street maintenance to the city.

Poor distribution of population in relation to business and industry, resulting in unnecessary transit and transportation, is a heavy charge in the great city of New York and to a less degree in many smaller cities.

Delay in acquiring public recreation areas is everywhere reported costly, to public health and well-being if the need be long unsupplied, and to municipal treasuries if adequate provision be made in densely built-up areas.

Carelessness of civic appearance has resulted in countless more intangible losses, visible in neglected stream banks, ugly business districts, barren residential neighborhoods, cluttered city streets, and unimpressive public buildings.

In scrutinizing the comments on tangible losses and neglected opportunities made to our field representative in the course of his visits, we find that many cities are well aware of some or all of these losses. Their magnitude, realized when the principles of city planning are once understood, strengthens public determination to avoid similar losses in the future so far as present experience and knowledge can teach the way.

Gains Secured from Planning

Throughout this book in discussing the various elements of city plans as these have been developed in planning programs, we have devoted a section to "observed beneficial effects," — of platting control, of zoning, of major street plans and measures for traffic relief, of park areas, and of improvements in civic appearance. There is no need to repeat here the specific examples of gains through planning reported in the cities visited. It is worth while, however, to sum up these gains and especially to corroborate the series of arguments for planning set forth in the Department of Commerce City Planning Primer, as thoroughly substantiated by observation and freely acknowledged in dozens of communities.

"Planning pays." The cost of a plan *is* reasonable in comparison even to its immediate benefits. Comprehensive zoning and control of plats exercised under the police power have cost only the sums expended in preparing plans and regulations. *Zoning and plat control divide honors in being reported the most profitable results of city planning.* The economic gains from municipal investments in replanning have been manifest in created property values and decreased congestion.

The control of land subdivision in newly developed areas has resulted in the dedication of many miles of major streets in accordance with comprehensive city plans (as in the regions of Detroit, Los Angeles, or Cleve-

land), in dedication or purchase at reasonable cost of parks and school sites (as in Memphis, Cincinnati, or Akron), in economies in installation of public utilities (notably evaluated in Schenectady), and in general in preventing the need for replanning, which has presented itself vividly to dozens of planning commissions as an incentive to recent work.

Zoning is reported to have increased property values substantially in many cities and to have stabilized values in all the zoned communities visited where a comprehensive ordinance has been in operation long enough to have an appreciable effect. The improvement in neighborhoods of low and medium cost homes is everywhere visible. The enhancement of values by wise foresight in selection of apartment house districts has been striking in St. Louis and Washington, D. C. The stimulation of appropriately placed local business centers is accounted a material social and economic gain in contrast to the previous scattering of small stores and the consequent creation of incipient blighted districts. It must always be remembered that the gains from zoning have been most substantial where zoning has been done as part of comprehensive planning or based on comprehensive data. Unrelated and piecemeal zoning was reported in several instances to have depreciated rather than increased property values. The social advantages, too, accruing to the community from zoning are bound to be greater when the apportionment of land uses has been made according with a comprehensively conceived plan for future development.

Replanning projects carried out as parts of city plans have returned substantial increases in taxes to the public treasury and vastly promoted public convenience. The rebuilding of the burned district in Baltimore largely according to the plans of the Burnt District Commission is reported by the city to have been a profitable investment. The street openings and widenings in accordance with the city plans of Chicago, St. Louis, Dallas, or Providence have enormously increased property values. The rehabilitation of the blighted district of St. Louis by street plan improvements and the new civic plaza is returning to the city a most satisfactory and increasing amount in taxes. Street plan improvements have been responsible for the desirable spread of central business districts in Pittsburgh, Knoxville, New Haven, and Omaha. The removal of railroad barriers in Chicago, Dallas, and Louisville is just beginning to show the economic gain to the community.

The actual present profits to city and county treasuries from *investment in park systems*, as in Essex and Union counties, N. J., or Westchester

County, N. Y., have been published in dollars and cents, and similar, if less spectacular, increases in property values from public parks are universally reported. *The social and economic benefits anticipated for future generations are being almost immediately enjoyed by the citizens who have contributed their modest share to the enterprise.*

The real gains from city and regional planning are fundamentally human gains. In observing communities made safer, healthier, more convenient, and more beautiful, we can see the direct contribution to human welfare, — to progress toward dignity in civic life, and order and happiness in individual relationships.

We Need More Facts on Planning Benefits

There are very few balance sheets to show in dollars and cents the value of comprehensive planning, and there are very few cities in which any attempt whatever has been made to appraise consciously in economic or social terms the results of planning, in the longer or shorter period during which control of growth has been exercised or planned public improvements carried out.

It is far easier to show in a general way that it is expensive not to plan than to demonstrate the total benefits of specific projects. The weighing and measuring of alternative schemes in preparing a budgeted city plan, such as that of White Plains, N. Y., could well be made to show the comparative benefits of planning and lack of planning, if it were not that we can scarcely determine what might have been.

The man who tries on present data to generalize as to city planning benefits is much in the position of a doctor meeting a series of individual patients. Their condition in any case would not remain stationary: they might die or get well with or without his medicine. But if enough patients get well, he can begin to generalize and rely on the qualities of certain medicines for specific ills.

The world moves along, and lack of planning is revealed as an arrestation, a lack of progress, when judged by the progress of the rest of the world which has gone ahead with preventive and remedial planning. We are aware of deficiencies only by comparison and contrast, and similarly of benefits by comparison with our own past ills, or ills observed in others.

The planning movement is just faintly beginning to show the findings of the "control experiment" of science. The reason we have so few concrete facts on planning benefits is because, each community being a growing and changing organism, the only way we can positively know

whether a new construction or reconstruction is profitable is to have a fairly complete financial statement of conditions in the region affected before the planned improvement, and to have corresponding figures for a comparable area where no improvement has been made.

The reports issued by the National Capital Park and Planning Commission as to "Savings Effected by Changes of Street Plan" and "Open Valley Treatment of Sewers" are examples of the control experiment. The estimated benefits of public parks in the city and region of New York, beginning with the balance sheets of the Commissioners of the Central Park in the sixties, and coming to the figures of the Westchester County Park Commission to-day, are fully substantiated and convincing. The figures of the Chicago Plan Commission and the City Plan Commission of St. Louis on great street plan improvements are similar appraisals.

We must conclude, however, that it is too soon to look for any extensive compilation of planning gains. They will be valuable as evidence only *as they are gains resulting from the carrying out of comprehensive plans*, studied and appraised in relation to the effect on the whole social and economic structure of the whole community. It would be well worth while, however, in the course of the next few years, to prepare an outline or guide by which communities undertaking city planning may evaluate the results obtained. Our principles will then be better formulated and our criteria of success more clearly determined.

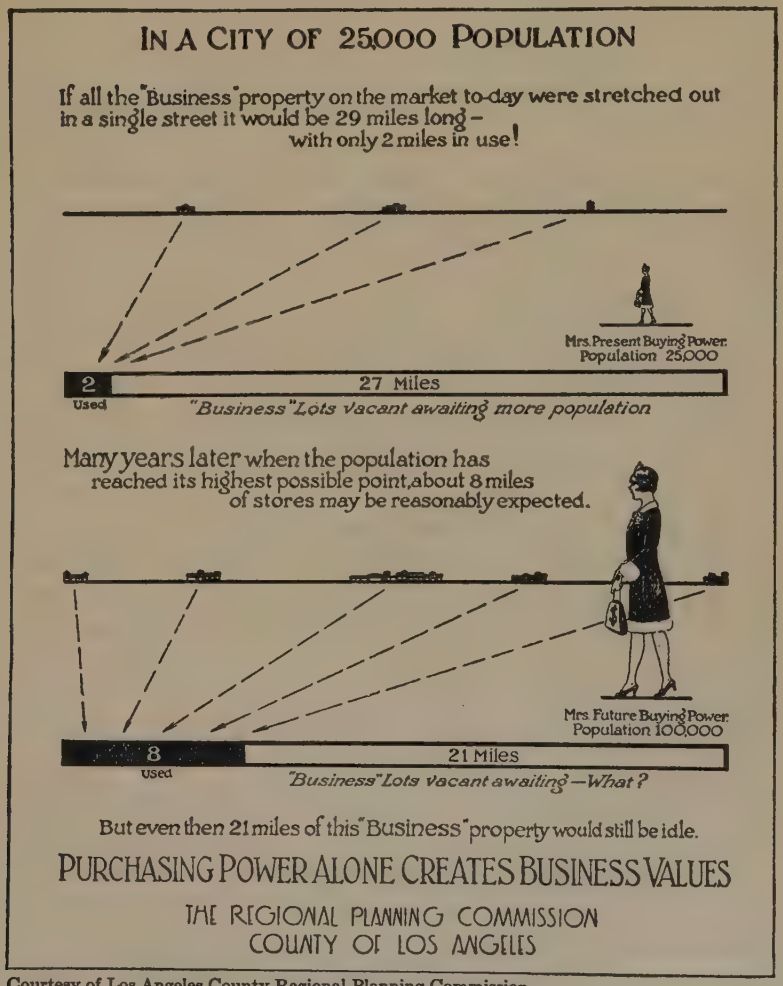
The lack of present tabulated information to show why city planning pays should be counted neither a reproach to the leaders and citizens who are pioneering in this great endeavor, nor a deterrent to the doubting in embarking on a city planning program. We cannot yet say safely *how much* it will pay in a given case, but we can confidently say: *Planning does pay.*

Future Gains

We have still to see the greatest goods predicted for comprehensive city and regional planning, and nowhere better set forth than in Mr. Thomas Adams's address "Forecast: The Regional Community of the Future," before the joint meeting of the American Society of Civil Engineers and American City Planning Institute in 1926.

We have no desire to claim that more than glimmerings of these goods have yet appeared in our present urban civilization. We can affirm, however, that the trends already induced by planning cannot fail to result in better distribution of population and in closer integration of

neighborhoods, in regional articulation of common services, and regional balance of industry and commerce; and that the measure of other gains will appear in the reduction of the cost of living, or better living for the same cost, and in fuller and richer lives for those who now are ground down by the narrowness of margin between work and its returns to the individual.


IN A CITY OF 25,000 POPULATION
If all the "Business" property on the market to-day were stretched out in a single street it would be 29 miles long –
with only 2 miles in use!
Mrs. Present Buying Power
Population 25,000
2
Used
27 Miles
"Business" Lots vacant awaiting more population
Many years later when the population has reached its highest possible point, about 8 miles of stores may be reasonably expected.
Mrs. Future Buying Power
Population 100,000
8
Used
21 Miles
"Business" Lots vacant awaiting – What?
But even then 21 miles of this "Business" property would still be idle.
PURCHASING POWER ALONE CREATES BUSINESS VALUES
THE REGIONAL PLANNING COMMISSION
COUNTY OF LOS ANGELES

Courtesy of Los Angeles County Regional Planning Commission

CHAPTER XVIII

LINES OF FUTURE PROGRESS

Stumbling Blocks to be Surmounted

IT is easy to point to the stumbling blocks which have barred the way to undertaking city planning or which have made progress halting and difficult. The present legal and financial obstacles are discussed briefly in Chapters II and VIII. In studying these, however, we may encourage ourselves by remembering that many of the supposed legal obstacles of a generation ago are to-day no longer limiting planning progress. The broadened scope of the police power has been well expressed in the Ohio decision (Pritz *vs.* Messer, 1925): "This problem [the validity of zoning under the police power] must be viewed from the standpoint of coming generations. Regarded from the limited outlook of the immediate present, it is easy to claim with some degree of cogency that there is no relation between these measures and the public health, safety or morals. Taking a long view into the future, however, and looking back into the past, to remind ourselves what detriment the unrestricted congestion of city life, both of traffic and housing, has already done the public welfare, we do see a real relation between the substantial material welfare of the community and this effort of the city to plan its physical life." Such beacons as this along the path of planning indicate that legal obstacles must ultimately yield to public opinion which will finally be reflected in a liberal attitude of the courts.

In addition to the present handicaps of inadequate powers under existing legislation — for creation of planning agencies, for regulating the development of private property, and for financing public improvements, — the local obstacles to planning progress revealed by the field study may be characterized as poverty and bad luck, petty politics and unwillingness to take a large view of any public problem, technical advice inappropriate in character, loosely given, or superimposed on an unprepared planning commission, lack of education of the public in support of planning, indifference to public welfare and delay in meeting plainly presented

issues, ignorance of various departmental officials, frank unawareness of problems of urban growth, and lack of leaders.

An example of bad luck combined with poverty of resources and indifferent politics was found in Fall River: the fire destroyed the best part of the center of the city instead of a shabby area desired for street improvements and the civic center, and the city has further been hard hit by the depression in the Northern textile industries. Poverty induced by burdensome annexations was exemplified in Akron and Pittsburgh.

In a number of state capitals, — for instance, Nashville, Tenn., — politics and the conservatism of the older generation have precluded planning activity to a large degree: indeed in state capitals, — barring such cities as Denver, Colo., Sacramento, Cal., St. Paul, Minn., Oklahoma City, Okla., Boston, Mass., and Providence, R. I., — planning progress has been the exception rather than the rule. The frozen conservatism of Northern New England has caused the rejection of carefully prepared zoning plans in several Maine cities.

Utica, N. Y., revealed administrative indifference contrasting sharply with the enthusiasm of certain Western cities. After an active city planning commission with expert advice had prepared a reasonably comprehensive plan for Utica, the plan commission was allowed to disintegrate in the fall of 1928 on the resignation of its chairman after nine years' labor, on account of the failure of the municipal administration to appoint commissioners to fill vacancies arising through expiration of terms.

The harm done by careless or inappropriate technical advice was patent in several of the cities studied, and also in several other cities omitted from the study because the returns for time expended promised to be relatively meager. The giving of professional advice in good measure for remuneration received cannot become a commercial business: the standards of professional service must remain high, if the needs of the community are to be substantially satisfied. The harm done by carelessly collected facts or unsuitable plans is not confined to the disappointed city alone: this disappointment is bruited about and deters neighboring communities from having anything to do with an activity characterized as unproductive and expensive. A poor plan for a city takes a long time to live down.

Lack of educational work to acquaint the public with the purposes and advantages of planning in general, or with the merits of particular plans prepared, has resulted in the temporary failure of good plans, or in hesitation to undertake planning or zoning. The patient education

of the planning commission and the public in Portland, Ore., has laid a new groundwork shown to be essential by earlier lack of comprehension and vision.

The existence of parks or other conspicuous public improvements has sometimes blinded people's eyes to the need of comprehensive planning, as we found in Council Bluffs, or in the Denver of earlier days when the fairly good development without city planning guidance precluded public desire for something better.

Indifference to projects undertaken by a previous political administration frequently blocks progress. Official ignorance or the failure of department heads to coöperate may nullify the work of an enterprising planning commission. Official indifference or opposition is less common than the piratical forces of private greed, or the organized opposition of little local factions, each pulling for its own petty projects and opposing plans of benefit to the community at large.

The task of comprehensive planning may be most difficult in the largest cities because of the great number of divergent points of view to be harmonized and the organized selfish interests to be overcome, although, as Mr. Harland Bartholomew has remarked, in the smaller city there may be the equally difficult task of fully comprehending the future.

Lack of constructive local leadership is perhaps the most insurmountable obstacle of all. Real leaders can accomplish miracles. Chicago had its Wacker and Dallas its Dealey, Grand Rapids and Boulder have each a "Grand Old Man"; but dozens of cities are unawakened because no one has arisen, with knowledge, enterprise, and popularity, to declare community needs and interpret these into a demand for comprehensive planning. If the proposed field work of the Planning Foundation of America can educate local leaders, the progress of city planning cannot be long impeded even by the obstacles which to-day loom large.

What We Need to Know about Planning Problems

The difficulties and obstacles encountered in cities in various parts of the country deserve more thorough ventilation and analysis. Such problems can never be solved by research alone, but by exchange of interpreted experiences there is a vast amount to be learned. Even if the factors inherent in our forms of municipal government and our party politics are known to pervade all community activities, the remaining factors capable of remodeling may be sifted, and the resulting codified experience may be turned to practical account.

We lack at present codification of experience in the administration of planning, in technical procedure for preparing plans, and in the application of tentatively formed standards. The standards themselves must never be absolute: they must be constructive rather than minimum, and adapted to social development rather than prohibitive of intolerable conditions; and they must recognize the peculiar local character and circumstances which differentiate a community from a machine. In codifying experience either from the municipal or technical point of view, the last thing to be desired is the presentation of facts without their modifying relationships and the compilation of statistics mechanically arrived at.

This present book has barely scratched the surface of planning experience in the United States. It makes no pretense to portray and evaluate more than the general trend. Chapter after chapter reveals the need of further study and analysis, particularly of the exercise of the community power in controlling development and of the effects of alternative methods under known conditions.

At various points through the book, specific subjects fruitful for investigation have been suggested: analysis of existing enabling legislation for creation of planning agencies, financing plan improvements, and enforcing city plans, and the operation of planning and planning agencies under this legislation; study of making and operation of capital fund budgets for guiding municipal expenditures for planned improvements; analysis of present and desirable practice in benefit assessments; studies of space requirements for residential, business, and industrial uses in cities of various sizes and types; studies of permitted and desirable densities of population under zoning, particularly in least restricted districts; field study of the physical and social results of platting control; study of the relation between traffic control and street planning; inquiry into recreational uses of waterfronts and possibilities in America of combining recreational with commercial use; research into principles of airport location in relation to the city plan; and a study to result in a technical monograph on methods of presenting city plans in reports and drawings. These are merely typical of a far larger number of subjects of investigation, any one of which is capable of yielding results directly valuable to municipalities confronted with such problems and to practitioners of planning.

We need codifications of principles, which the American City Planning Institute is undertaking to prepare, beginning with the control of land

subdivision already issued, and following with zoning now in preparation. The expressed consensus of opinion among qualified practitioners of city planning in such Institute statements puts ammunition in the hands of progressive citizens working to secure city planning, — justifying support of broad points of view and whole measures as against narrow or partial proposals. The study tour revealed that broader points of view when set forth are frequently seized upon with avidity, having been overlooked in local cogitations rather than avoided or discarded. There is no doubt that the broad points of view embodied in the Department of Commerce primers of city planning and zoning and the standard acts have exerted an incalculable influence on the character of planning activities.

In addition to statements of principles, we need frankly revealed facts — not promises or projects — and collections of juxtaposed examples, analyzed with a view to determining trends and directing attention to basic factors and desirable methods of procedure. For instance, a nation-wide study of low-cost residential districts, including both housing in tenements and in single-family dwellings (row and detached), as developed under zoning and subdivision control, would yield some startling facts about density of development sactioned by community regulations. The surveys of the Regional Plan of New York suggest factors to be analyzed in arriving at some conception of the kind of social environment we are actually encouraging and how far minimum standards are below both human requirements and real economic necessity. The Regional Plan of New York researches as well as the space requirement and density studies made in Los Angeles, Chicago, and other centers, show that there is plenty of land in urban regions of the United States to provide for a population greater than we now need to forecast. Collected examples of community regulations affecting density in a hundred typical communities would convince us that the social results to be achieved by present-day comprehensive planning are inconsiderable compared to those which may be obtained in the future, when the factual bases of urban life are evaluated and the possibilities of community guidance thoroughly comprehended.

In the selection of subjects of research, those should have first place which are likely to yield results bearing a direct relationship to human welfare. The environment for human living, working, and playing constitutes the whole physical and social background of planning. The more we think in pictures of space and light and air and amenity and the less

in terms of formulae and statistics the more vital will be the practical effects of specialized study.

The results of research may be made useful in various ways. A bird's-eye view may be presented, as attempted in this book, which may stimulate others to determine new studies and courses of procedure or experiments worth trying. Again, one small subject, selected for an exhaustive fact-finding study, may be fully presented, with copious notes on existing conditions, on results of procedure, and on opinions held by local observers. Such a detailed presentation of a special phase may be accompanied by a statement of conclusions drawn by the person or group conducting the research; but if not, the fullness of the information given will enable competent students to draw their own conclusions. Again, two or more closely related subjects studied together in perhaps a smaller number of selected cities or regions, may lead to a series of principles, supported by examples, which approach the ideal of standards, if those making the research have the knowledge and penetration to speak with authority.

It is not enough that the results of research should be presented in form for technical use. The most significant facts and conclusions should also be given popular form. Here the Regional Plan of New York can point the way. News releases and articles in periodicals have conveyed to the public of the New York region — to a considerable extent also to the public at large — the pregnant conclusions designed to stimulate thought and arouse popular action. Moreover in publishing research studies, the appeal to the average city planning commissioner and public official must be made not through bewildering jargon of technicalities and statistics but through clear, simply-stated expositions, which carry conviction of the practicality of the study and of the reliability of the conclusions.

The present field study proves that those charged with the responsibilities of planning all over the country are eager for facts and statements of experience. They look for future progress in their communities largely along three lines: zoning, subdivision control, and major thoroughfare planning. They need to know the relation of these three most popular phases of planning to each other and to the remaining elements of comprehensive plans, and they need this knowledge in expository and analytical form, so appealingly presented that the broader points of view, "sold" to commissioners and officials, may by them be re-sold to the community.

Influences Shaping Future Progress

Two sets of forces are at work to-day which tend to offset each other in their effect on urban development. On the one hand there are the decentralizing forces, and on the other hand, the centralizing or metropolitan tendencies which may be, but are not necessarily, incompatible with a reasonable redistribution of population.

Just how far the newer elements in the decentralizing forces will change the relative values of the elements in city and regional planning, no man can now determine. Three decades ago it would have been deemed fantastic if the present vast extent of passenger and freight transport by motor vehicles had been predicated as a factor in regional and national development. What will the use of aircraft be three decades hence? Will it be so great as to render the highway planning of to-day as obsolete as is now the street design of three decades ago? How far will the airplane cause decentralization to spread, and what will be its effect on the size of regional units as conceived for planning purposes? Will the radio, or some more magic successor, continue sufficiently to counteract the loneliness of rural regions? Will the other new decentralizing force — electric power supply — achieve the re-centralization of industry in undeveloped areas rapidly enough to check the older urban surge of manufacturing that has not entirely lost its momentum, although motor transport has tended to scatter it more widely through tributary urban regions? Will the vogue of outdoor sport continue to attract thousands of people to country and suburban life?

It takes little imagination to predict an increasing complexity of cultural life in metropolitan centers and the development of an even more intense urban-mindedness than our great cities foster to-day. The metropolitan tendency in the best of art and letters is perhaps only the more emphasized by the smaller art centers which are springing up here and there. People will congregate in cities for the seasons of music and drama. Many will prefer to live in cities to be constantly surrounded by the wealth of cultural opportunity. Many must continue to live in cities because they know no other form of life. Born in tenements or apartments, they are dependent on the city for work and for play; they despise any life outside their own limited urban knowledge.

The City of To-Morrow

It has always been the sport of inventive minds to picture the world as it is to be, and such pictures have often had an uncanny realization.

ONE SOMETIMES WONDERS WHAT WILL BE THE FUTURE OF THE GREAT ARTERIAL ROADS, ON THE CONSTRUCTION OF WHICH SO MUCH MONEY IS BEING SPENT.

PROBABLY SOMEONE WILL ALWAYS FIND A USE FOR THEM.

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THE FUTURE?

Some of the startling Jules Verne fantasies of a generation ago are almost the commonplaces of to-day. We cannot believe, however, that the city of the future which it is now the fashion to picture, with its towers among the clouds, its many-leveled streets, and its hives of herded men and women, can ever be the true American city of to-morrow. The skyscraper city has arisen in darkness and congestion; although it now pretends to be seeking the light, no thorough-going measures are following the attempted palliatives. What the artists who amuse themselves by dreaming these impossible turreted Babylons constantly forget is that New York is not the United States. A comparatively few metropolitan cities may be driven to Babylonian expedients to mitigate the consequences of their huddled skyscrapers and to take care of their urban-minded apartment dwellers; but by far the larger number of communities in the United States regard such pictures of architectural aspiration only as warnings or as nightmares.

As a race we are not so far from the pioneer days that the soil has lost its preciousness. For every thousand families in the United States who are content to exist in mid-air completely detached from the land, there are more than a thousand who wish to call a bit of ground their own. Of those who weekdays roost on high, cooped by economic circumstance, many fare forth on holidays and Sundays in an untutored horde to repossess the landscape.

The "To-morrow: a Peaceful Path to Real Reform" of Ebenezer Howard, achieved in the English garden city, holds far more of reality than the Babylon of the metropolitan booster. Our American city of to-morrow may not be so limited in size as Letchworth or Welwyn; it may not be surrounded by a true agricultural belt; it may at its core have wider streets and higher buildings; it will seldom be so consciously a social experiment. We venture to predict, however, that its size will be consciously proportionate to the size and character of the tributary region and to the efficient size of residential neighborhoods; that enough land will be open within and around it to prevent the merging of neighborhoods in an amorphous and soulless urban mass; that if its central buildings are higher, they will be proportioned to streets and open spaces; and that this balanced growth will result from a recognition by the American people that social welfare may be substantially attained if each citizen will yield from his private right as much as is necessary to protect the rights of others, — that each may enjoy his own right to light and air and space and touch with the life-giving earth.

APPENDICES

APPENDIX I

SUBJECT NOTES

A. Cities and Regions Visited, with Official Names of Planning Commissions

B. Cities Visited, listed according to Population

C. Types of Cities Visited, listed according to Function

D. Appropriations and Staffs for Work of City Planning Commissions and Departments

E. Comments on Benefit Assessments

F. Municipal Regulation of Platting: Area of Control

G. Analysis of Municipal and County Regulations for Subdivision Control. By Howard K. Menhinick

H. Notes on Reservation of Open Spaces in Plats

I. Comments on Benefits of Plat Control

J. Comments on Benefits of Zoning

K. Comments on Gains resulting from Street Plan Improvements

L. Street Traffic Studies Reported

M. Parking Facilities in Office Buildings

N. Elimination of Railroad Grade Crossings

O. Experience with Block Interior Playgrounds

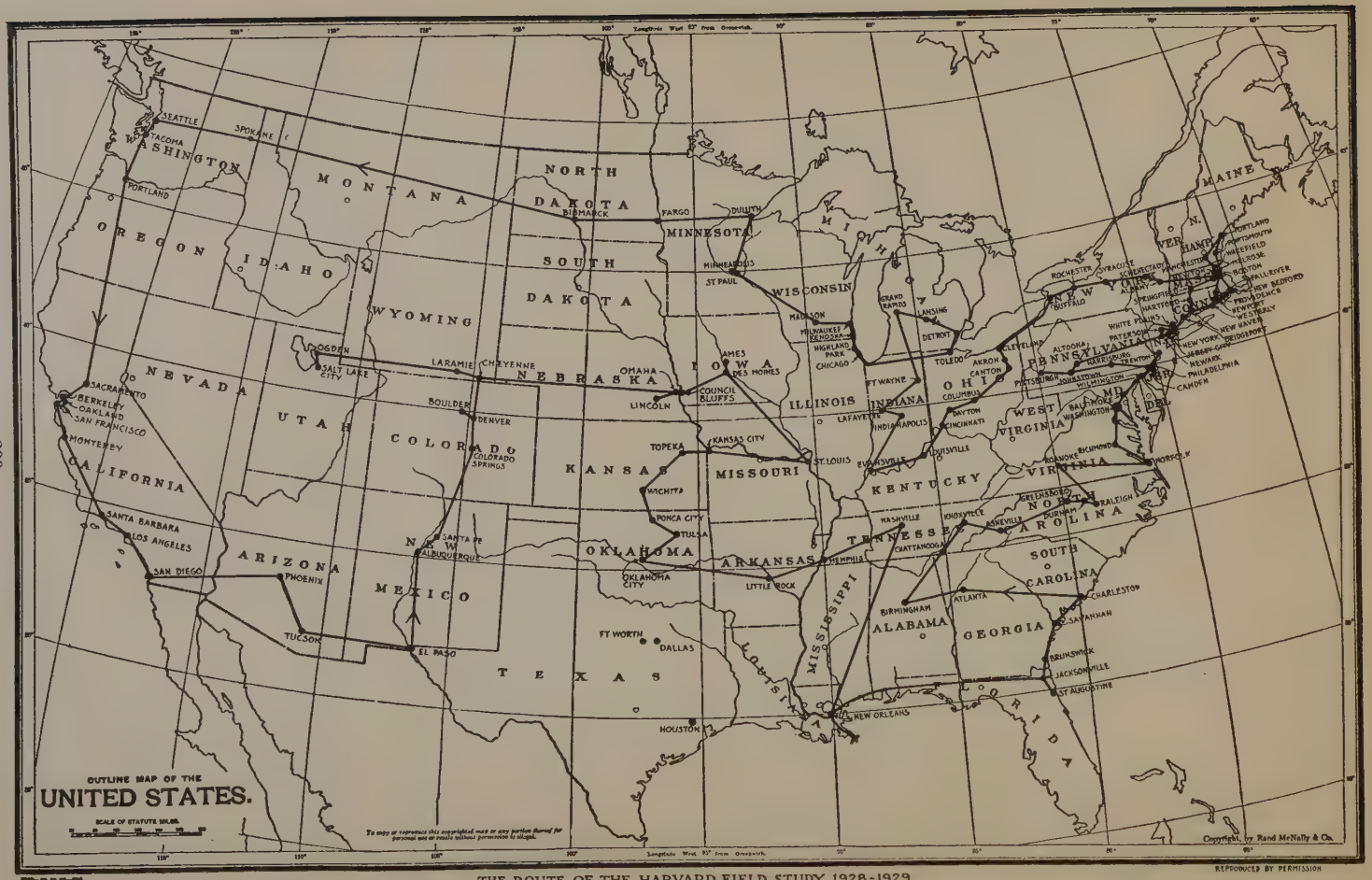
P. Notes on Recreational Waterfronts

Q. Effects of Public Open Spaces on Land Values

R. Comments on Civic Centers

S. Removal of Overhead Wires

Since Appendix I, Section A, gives the complete list of cities and regions visited, city names used in the following sections are not usually accompanied by state abbreviations, which can be readily looked up in Section A. Where no information on a topic was secured in a given city, its name has been omitted in the later sections of this Appendix.



THE ROUTE OF THE HARVARD FIELD STUDY, 1928-1929

A. CITIES AND REGIONS VISITED, WITH OFFICIAL NAMES OF PLANNING COMMISSIONS

CITIES VISITED

Akron, O.	City Planning Commission
Albany, N. Y.	City Planning Commission
Albuquerque, N. M.	none
Altoona, Pa.	City Planning Commission
Asheville, N. C.	City Planning Commission
Atlanta, Ga.	City Planning Commission
Baltimore, Md.	City Plan Committee
Berkeley, Cal.	City Planning Commission
Birmingham, Ala.	none
Bismarck, N. D.	Planning Commission
Boston, Mass.	City Planning Board
Boulder, Colo.	Planning and Parks Commission
Bridgeport, Conn.	City Plan Commission
Brunswick, Ga.	See Glynn County
Buffalo, N. Y.	City Planning Commission
Camden, N. J.	none
Canton, O.	City Planning Commission
Charleston, S. C.	none
Chattanooga, Tenn.	Chattanooga Planning Board
Cheyenne, Wyo.	none
Chicago, Ill.	Chicago Plan Commission
Cincinnati, O.	City Planning Commission
Cleveland, O.	Cleveland City Plan Commission
Colorado Springs, Colo.	none
Columbus, O.	City Planning Commission
Council Bluffs, Ia.	City Planning Commission
Dallas, Tex.	City Plan and Zoning Commission
Dayton, O.	City Plan Board
Denver, Colo.	Denver Planning Commission
Des Moines, Ia.	City Plan Commission
Detroit, Mich.	City Plan Commission
Duluth, Minn.	City Planning Commission
Durham, N. C.	The Planning and Zoning Commission
El Paso, Tex.	City Plan Commission
Evansville, Ind.	City Plan Commission
Fall River, Mass.	The Planning Board
Fargo, N. D.	Planning Commission
Fort Wayne, Ind.	Fort Wayne City Plan Commission
Fort Worth, Tex.	City Plan and Zoning Commission
Grand Rapids, Mich.	City Plan Department
Greensboro, N. C.	City Planning Commission
Harrisburg, Pa.	City Planning Commission
Hartford, Conn.	Commission on the City Plan

Highland Park, Ill.	Highland Park City Planning and Zoning Commission
Houston, Tex.	City Planning Commission
Indianapolis, Ind.	The City Plan Commission
Jacksonville, Fla.	City Planning Advisory Board
Jersey City, N. J.	none
Johnstown, Pa.	City Planning Commission
Kansas City, Mo.	City Plan Commission
Kenosha, Wis.	City Planning Commission
Knoxville, Tenn.	City Planning Commission
Lafayette, and West Lafayette, Ind.	Lafayette Plan Commission City Plan Commission of W. Lafayette
Lansing, Mich.	none
Laramie, Wyo.	Laramie Planning Commission
Lincoln, Neb.	none
Little Rock, Ark.	City Planning Commission
Los Angeles, Cal.	Board of City Planning Commissioners of Los Angeles.
Louisville, Ky.	City Planning Commission
Madison, Wis.	City Plan Commission
Manchester, N. H.	City Planning Board
Melrose, Mass.	Melrose Planning Board
Memphis, Tenn.	City Planning Commission
Milwaukee, Wis.	Board of Public Land Commissioners
Minneapolis, Minn.	City Planning Commission
Nashville, Tenn.	none
Newark, N. J.	none
New Bedford, Mass.	The Planning Board
New Haven, Conn.	The City Plan Commission
New Orleans, La.	City Planning and Zoning Commission
Newport, R. I.	City Planning Board
Newton, Mass.	Planning Board
New York City, N. Y.	[Pending]
Norfolk, Va.	City Planning Commission
Oakland, Cal.	City Planning Commission
Ogden, Utah	none
Oklahoma City, Okla.	City Planning Commission
Omaha, Neb.	City Planning Commission
Paterson, N. J.	Paterson City Plan Commission
Philadelphia, Pa.	(Mayor's Citizens Committee on City Planning)
Phoenix, Ariz.	(The City Planning Commission of 100)
Pittsburgh, Pa.	City Planning Commission
Ponca City, Okla.	Ponca City Planning Commission
Portland, Me.	none
Portland, Ore.	City Planning Commission of Portland
Portsmouth, N. H.	none
Providence, R. I.	City Plan Commission

Raleigh, N. C.	City Planning Commission
Richmond, Va.	none
Roanoke, Va.	City Planning Commission
Rochester, N. Y.	City Planning Commission
Sacramento, Cal.	City Planning Commission
St. Augustine, Fla.	City Plan Board
St. Louis, Mo.	City Plan Commission
St. Paul, Minn.	The City Planning Board
Salt Lake City, Utah	Zoning Commission
San Diego, Cal.	City Planning Commission
San Francisco, Cal.	City Planning Commission
Santa Barbara, Cal.	City Planning Commission
Santa Fe, N. M.	none
Savannah, Ga.	none
Schenectady, N. Y.	City Planning Commission
Seattle, Wash.	City Planning Commission
Spokane, Wash.	City Plan Commission
Springfield, Mass.	Springfield City Planning Board
Syracuse, N. Y.	Planning Parks and Recreation Commission
Tacoma, Wash.	City Planning Commission
Toledo, O.	City Plan Commission
Topeka, Kan.	City Planning Commission
Trenton, N. J.	none
Tucson, Ariz.	City Planning Commission
Tulsa, Okla.	City Plan Commission
Wakefield, Mass.	Planning Board
Washington, D. C.	National Capital Park and Planning Commission
Westerly, R. I.	Zoning Board
White Plains, N. Y.	City Planning Board (Bureau of City Plan)
Wichita, Kan.	City Planning Commission
Wilmington, Del.	none

COUNTIES AND REGIONS WITH OFFICIAL COMMISSIONS VISITED

Allegheny County Planning Commission (Pittsburgh, Pa.)
Metropolitan District Commission (Boston, Mass.), Division of Metropolitan Planning
Glynn County Planning Board (Brunswick, Ga.)
Hamilton County Regional Planning Commission (Cincinnati, O.) *
King County Regional Planning Commission (Seattle, Wash.)
Los Angeles County (Cal.) The Regional Planning Commission
Lucas County Planning Commission (Toledo, O.)
Maryland–National Capital Park and Planning Commission (Silver Spring, Md.)
Cf. National Capital Park and Planning Commission, Washington, D. C., *ante.*
Milwaukee County (Wis.) Regional Planning Department
Monterey Peninsula (Cal.) Regional Planning Commission (inactive).
Niagara Frontier Planning Board (Tonawanda, N. Y.)
Oklahoma City (Okla.) Regional Planning Commission
Onondaga County Park and Regional Planning Board (Syracuse, N. Y.)
Passaic County Planning Commission (Paterson, N. J.) *
Ponca City (Okla.) Regional Planning Commission
Santa Barbara County (Cal.) Planning Commission
Tulsa (Okla.) Regional Planning Commission

* Established since visit.

REGIONS WITH UNOFFICIAL PLANNING ORGANIZATIONS VISITED

Regional Plan of New York and Its Environs
Chicago Regional Planning Association
Regional Planning Federation of the Philadelphia Tri-State District
Niagara Frontier Planning Association (Buffalo, N. Y.)
Metropolitan Regional Planning Association of Minneapolis, St. Paul, and Environs
Passaic County Planning Association (Paterson, N. J.)
Fairfield County Planning Association (Bridgeport, Conn.)
Suburban Planning Commission (Norfolk, Va.)
East Bay Regional Planning Association (Oakland, Cal.)

B. CITIES VISITED, LISTED ACCORDING TO POPULATION

Except as otherwise noted, the figures used are from the Bureau of the Census population estimates for July 1, 1928, as issued by the United States Department of Commerce.

Cities Having a Population of 1,000,000 and Over

New York	6,017,500	Detroit	1,378,900
Chicago	3,157,400	Los Angeles	1,300,000 *
Philadelphia	2,064,200	Cleveland	1,010,300

Cities Having a Population of 500,000 to 1,000,000

St. Louis	848,100	San Francisco	585,300
Baltimore	830,400	Buffalo	555,800
Boston	799,200	Washington	552,000
Pittsburgh	673,800	Milwaukee	544,200

Cities Having a Population of 300,000 to 500,000

Newark	473,600	Indianapolis	382,100
Minneapolis	455,900	Portland, Ore.	340,740 *
New Orleans	429,400	Louisville	329,400
Cincinnati	413,700	Rochester	328,200
Kansas City	391,000	Jersey City	324,700
Seattle	383,200	Toledo	313,200

Cities Having a Population of 200,000 to 300,000

Columbus	299,000	St. Paul	250,100 *
Denver	294,200	Akron	225,000 *
Providence	286,300	Omaha	222,800
Oakland	274,100	Birmingham	222,400
Houston	256,000 *	Dallas	217,800
Atlanta	255,100		

Cities Having a Population of 100,000 to 200,000

Syracuse	199,300	Nashville	139,600
Richmond	194,400	Trenton	139,000
New Haven	187,900	Salt Lake City	138,000
Dayton	184,500	Camden	135,400
Norfolk	184,200	Fall River	134,300
Memphis	190,200	Wilmington	128,500
Hartford	172,300	Albany	120,400
Fort Worth	170,600	San Diego	119,700
Tulsa	170,500	New Bedford	119,539 *
Grand Rapids	164,200	El Paso	117,800
Bridgeport	152,500 *	Canton	116,800
Des Moines	151,900	Duluth	116,800
Springfield	149,800	Tacoma	110,500
Oklahoma City	145,000 *	Spokane	109,100
Paterson	144,900	Knoxville	105,400
Jacksonville	140,700	Fort Wayne	105,300

* Estimated population for 1926 as given in the 1928 World Almanac.

Cities Having a Population of 50,000 to 100,000

Savannah	99,900	Johnstown	73,700
Wichita	99,300	Chattanooga	73,500
Evansville	98,100	Lincoln	71,100
Schenectady	93,300	Berkeley	71,000
Harrisburg	86,900	Altoona	69,100
Manchester	85,700	Roanoke	64,600
Lansing	79,600	Topeka	62,800
Little Rock	79,200	Newton	57,300
Portland, Me.	78,600	Kenosha	56,500
Charleston	75,900	Greensboro	51,900
Sacramento	75,700	Madison	50,500

Cities Having a Population of 30,000 to 50,000

Durham	47,600	Asheville	32,000 *
Council Bluffs	42,300	Newport	31,374 *
Phoenix	42,100 *	Raleigh	31,000 *
Ogden	39,100	Colorado Springs	30,105 *

Cities Having a Population of Less than 30,000

Figures from Chamber of Commerce of United States, 1925 population estimate, used in its List of Planning Commissions.

White Plains	27,428	Portsmouth	13,569 †
Tucson	26,733	Cheyenne	13,202
Fargo	24,921	Boulder	11,837
Santa Barbara	24,038	Westerly	11,177
Lafayette	22,486 †	St. Augustine	10,458
Melrose	20,148	Laramie	9,629
Ponca City	17,000 ‡	Bismarck	9,150
Wakefield	15,611	Santa Fe	7,236 †
Albuquerque	15,157 †	Highland Park	6,167 †
Brunswick	14,413 †		

* Estimated population for 1926 as given in the 1928 World Almanac.
† 1920 Federal Census.
‡ 1927 local census.

C. TYPES OF CITIES VISITED, LISTED ACCORDING TO FUNCTION

Metropolitan Cities

New York
Chicago
Philadelphia
Boston
Detroit
Los Angeles
Cleveland
St. Louis
Minneapolis-St. Paul
Baltimore
Pittsburgh
San Francisco
Washington

State Capitals

Ariz.	Phoenix	Mass.	Boston	Ohio	Columbus
Cal.	Sacramento	Mich.	Lansing	Okla.	Oklahoma City
Ark.	Little Rock	Minn.	St. Paul	Pa.	Harrisburg
Colo.	Denver	Neb.	Lincoln	R. I.	Providence
Conn.	Hartford	N. J.	Trenton	Tenn.	Nashville
Ga.	Atlanta	N. M.	Santa Fe	Utah	Salt Lake City
Ind.	Indianapolis	N. Y.	Albany	Va.	Richmond
Iowa	Des Moines	N. C.	Raleigh	Wis.	Madison
Kan.	Topeka	N. D.	Bismarck	Wyo.	Cheyenne

Industrial Cities

Cities with Specialized Industry

Akron, rubber
Altoona, railroad shops
Birmingham, steel
Cheyenne, railroad shops
Dayton, cash registers
Detroit, automobiles
Durham, tobacco and textiles
Fall River, textiles
Grand Rapids, furniture
Greensboro, textiles
Johnstown, steel
Lansing, automobiles
Manchester, textiles
New Bedford, textiles
Pittsburgh, steel
Ponca City, oil
Sacramento, fruit and meat packing
Salt Lake City, mining
Schenectady, electrical apparatus
Tulsa, oil

Cities with Varied Industries

Atlanta
Bridgeport
Camden
Canton
Chicago
Cincinnati
Cleveland
Columbus
Dallas
Duluth
Evansville
Fort Wayne
Houston
Jersey City
Kenosha
Louisville
Milwaukee
Newark
Oakland
Ogden
Paterson
Roanoke
Rochester
Syracuse
Toledo
Trenton
Westerly
Wilmington

Ports

Serving Ocean Shipping

Baltimore
Boston
Brunswick
Charleston
Jacksonville
Los Angeles
New Orleans
New York
Norfolk
Oakland
Philadelphia
Portland, Me.
Portland, Ore.
Portsmouth, N. H.
San Diego
San Francisco
Savannah
Seattle
Tacoma
Wilmington

Serving Lake and River Shipping

Albany
Buffalo
Cleveland
Detroit
Duluth
Kenosha
Memphis
Milwaukee
St. Louis
Toledo

Railroad or Distributing Centers

Albany
Atlanta
Birmingham
Bismarck
Buffalo
Cheyenne
Chicago
Columbus
Council Bluffs
Dallas
Denver
El Paso
Fargo
Fort Worth
Harrisburg
Houston
Indianapolis
Jacksonville
Kansas City
Knoxville
Madison
Memphis
Minneapolis
Ogden
Oklahoma City
Omaha
Richmond
Sacramento
St. Paul
Salt Lake City
Spokane
Springfield
Syracuse
Toledo
Topeka
Wichita

Resort or Tourist Cities

Albuquerque
Asheville
Boulder
Brunswick
Charleston
Chattanooga
Colorado Springs
Denver
El Paso
Jacksonville
Los Angeles
Newport
Phoenix
St. Augustine
San Diego
Santa Barbara
Santa Fe
Savannah
Tucson

University Cities

Berkeley
Boston
Boulder
Columbus
Denver
Durham
Laramie
Lincoln
Madison
Nashville
New Haven
Providence
Raleigh
Richmond
St. Paul
Syracuse

Residential Suburbs

Berkeley, Cal.
Highland Park, Ill.
Melrose, Mass.
Newton, Mass.
Wakefield, Mass.
White Plains, N. Y.

D. APPROPRIATIONS AND STAFFS FOR THE WORK OF CITY PLANNING COMMISSIONS AND DEPARTMENTS

Figures and facts are usually for the year 1928 or an average of recent years.

Cities Having Appropriations Greater Than $20,000

BOSTON. *Staff*, executive officer, 4 draftsmen and engineers, 2 clerks — *Appropriation*, approximately $30,000.

BUFFALO. *Staff*, executive officer, executive secretary, stenographer and draftsman — *Appropriation*, $28,000.

CHICAGO. *Staff*, manager, chief engineer, 14 draftsmen, architects, and engineers, 2 stenographers — *Appropriation*, $90,000.

CINCINNATI. *Staff*, engineer-secretary, assistant civil engineer, 4 draftsmen, senior stenographer — *Appropriation*, $22,000.

CLEVELAND. *Staff*, executive secretary, 2 civil engineers, 2 draftsmen, 1 field worker, 1 stenographer. Good coöperation with engineering, building, and park departments — *Appropriation*, $33,000.

DETROIT. *Staff*, city planner-secretary, 1 engineer, 2 assistant engineers, 8 draftsmen, 2 landscape architects, 2 stenographers — *Appropriation*, $50,000.

LOS ANGELES. *Staff*, director-manager, 1 planning engineer, 1 investigator, 1 secretary, 4 draftsmen, 2 general clerks, 4 stenographers — *Appropriation*, $39,168.

MILWAUKEE. *Staff*, secretary, 1 city planning engineer, 5 engineers and draftsmen, 3 stenographers — *Appropriation*, $33,250.

MINNEAPOLIS. *Staff*, city planning engineer, 2 assistant engineers, 2 draftsmen, 2 stenographers — *Appropriation*, approximately $15,000 plus about $6,000 from the Board of Estimate for services rendered to them.

NEW ORLEANS. *Staff*, secretary, stenographer, part-time assistants, plus local staff in charge of engineer who is consultant's field representative, consisting of 1 statistician and force of draftsmen varying from 3 to 7 — *Appropriation*, average from Jan. 1, 1926 through 1929, $25,000.

PITTSBURGH. *Staff*, 56 members, including chief engineer. Majority of plans are carried up to the point of preparing actual contract plans. Large amount of topographic mapping being done — *Appropriation*, $121,613.

ST. LOUIS. *Staff*, engineer, secretary, 1 assistant engineer, 1 architect, 1 draftsman and statistician, 2 draftsmen, 1 stenographer, 1 office boy — *Appropriation*, $20,000 to $25,000.

SCHENECTADY. *Staff*, none. Technical work is done entirely by consultants. Large amount of topographic mapping being done — *Appropriation*, $30,000.

WASHINGTON. *Staff*, executive officer, 1 city planner, 3 engineers, 1 consulting architect, 1 secretary and administrative assistant, 2 landscape architects, 3 draftsmen, 1 stenographer — *Appropriation*, see annual reports. Includes funds for purchase of land.

WHITE PLAINS. *Staff*, city plan engineer, 1 special counsel, 2 assistant engineers, 3 engineer assistants. Department of public works often loans forces and equipment — *Appropriation*, $29,150.

Cities Having Appropriations of $10,000 to $20,000

AKRON. *Staff*, planning engineer, 1 landscape architect, 1 engineer. Coöperation with public service department — *Appropriation*, $10,000.

ATLANTA. *Staff*, engineer-secretary, 1 stenographer, 1 office assistant. Coöperation with building inspector and construction department is excellent — *Appropriation*, $15,000.

DENVER. *Staff*, executive secretary, 1 draftsman, 1 part-time secretary. Good coöperation with city engineer's office — *Appropriation*, $10,000.

EVANSVILLE. *Staff*, executive secretary, 1 stenographer, drafting assistance as needed — *Appropriation*, $10,000.

HOUSTON. *Staff*, secretary-city planning engineer, 3 draftsmen, 1 stenographer — *Appropriation*, $15,000.

INDIANAPOLIS. *Staff*, executive officer, 2 engineers, 1 draftsman, 1 secretary — *Appropriation*, $16,800.
KANSAS CITY. *Staff*, secretary-publicity director, 1 engineer, 1 draftsman, 1 stenographer — *Appropriation*, $14,000.
PORTLAND, ORE. *Staff*, secretary, 1 stenographer, 2 draftsmen — *Appropriation*, $13,060.
ROANOKE. *Staff*, secretary, 1 stenographer. City engineer provides draftsmen when desired — *Appropriation*, $13,700 including consultant fees.
SAN DIEGO. *Staff*, city planning engineer, 2 assistants. Planning commission does some technical work for the park and harbor commissions — *Appropriation*, $10,000.
SYRACUSE. *Staff*, consultant, 1 civil engineer-lawyer, 2 civil engineers, 2 architects, 1 landscape architect, 1 secretary — *Appropriation*, $11,095.

Cities Having Appropriations of $5000 to $10,000

CANTON. *Staff*, engineer-secretary. City engineering department loans services of its staff — *Appropriation*, $7400.
COLUMBUS. *Staff*, executive officer, 1 assistant engineer, 1 zoning clerk, 1 draftsman. Have had as many as 37 students employed on thoroughfare studies — *Appropriation*, $6600.
DALLAS. *Staff*, consulting city planner, 1 secretary, 1 draftsman, 1 assistant engineer assigned from staff of engineering department and paid by them — *Appropriation*, $8000.
DES MOINES. *Staff*, secretary-engineer, 1 secretary. Excellent coöperation with engineering and park departments — *Appropriation*, averages about $6000.
DULUTH. *Staff*, secretary-city planning engineer, 1 stenographer. Park department, tax assessor, and city engineer coöperate — *Appropriation*, $5500.
FORT WAYNE. *Staff*, consultant, 1 part-time secretary. Close coöperation with department of public works — *Appropriation*, $9200.
KENOSHA. *Staff*, city plan engineer, survey party consisting of 1 engineer and 2 rodmen. Engineering department coöperates — *Appropriation*, about $7200.
MEMPHIS. *Staff*, secretary, 1 part-time assistant whose salary is paid from city engineer's budget. Good coöperation also with park commission and building inspector — *Appropriation*, $8000.
NEW HAVEN. *Staff*, city plan engineer for 200 days per year. Most of technical work done by bureau of engineering — *Appropriation*, $5150.
OAKLAND. *Staff*, planning engineer, 1 stenographer — *Appropriation*, council budget, $1000. Special, $4800.
OKLAHOMA CITY. *Staff*, secretary (paid by municipal councillor's office). City engineer's office does necessary drafting work gratis — *Appropriation*, $6575 plus enough transfers from other funds to equal $10,000 for 1929. This covers consultant fees and incidentals.
SACRAMENTO. *Staff*, consultant organization during plan preparation — *Appropriation*, $7600 for consultant fees, report publication, and incidentals.
ST. PAUL. *Staff*, managing director-engineer (salary paid jointly by city planning board and department of public works), secretary-stenographer, 2 draftsmen, 1 chauffeur — *Appropriation*, $9424 provided in budget of department of public works.
SAN FRANCISCO. *Staff*, executive secretary (data on staff incomplete) — *Appropriation*, $6970.
SPOKANE. *Staff*, engineer, 1 draftsman, additional assistance as needed from city engineer's office — *Appropriation*, $5000.
SPRINGFIELD. *Staff*, 1 engineer, 1 assistant engineer (permanent), 1 assistant engineer (temporary), 1 stenographer — *Appropriation*, $8360.
TOLEDO. *Staff*, secretary-engineer, 1 stenographer — *Appropriation*, $6895.
TUCSON. *Staff*, none — *Appropriation*, $5000 to city engineer to prepare present use zoning maps.
TULSA. *Staff*, secretary-engineer, 1 associate engineer. City engineering department does necessary drafting — *Appropriation*, $5000.
WEST LAFAYETTE. *Staff*, secretary — *Appropriation*, $225 plus $7000 in gifts to provide consulting and engineering services.

Cities Having Appropriations Less than $5000

ALTOONA. *Staff*, part-time secretary (city engineer), 1 draftsman — *Appropriation*, Gifts averaging about $4700 from 1926 to 1928.
BISMARCK. *Staff*, none — *Appropriation*, $500 for a preliminary survey.
BOULDER. *Staff*, city engineer — *Appropriation*, $1890 for years 1928–9, $1500 of which was devoted to preparation of zoning ordinance.
DAYTON. *Staff*, secretary-engineer, 1 stenographer. Other city departments give cordial coöperation — *Appropriation*, $4300.
FALL RIVER. *Staff*, part-time secretary — *Appropriation*, $2600.
GRAND RAPIDS. *Staff*, secretary, stenographer. Splendid coöperation with other city departments — *Appropriation*, $4750.
JOHNSTOWN. *Staff*, part-time secretary, stenographic assistance as needed. City engineering department does necessary technical work — *Appropriation*, $1500.
LAFAYETTE. *Staff*, city engineer — *Appropriation*, $1050 plus gift of $3500 to provide consulting and engineering services.
MANCHESTER. *Staff*, part-time secretary — *Appropriation*, $400.
NEW BEDFORD. *Staff*, city engineer (unofficial). Staff of city engineer's office is available. Good coöperation with other city departments facilitated by representation of important ones on planning board — *Appropriation*, $400.
NORFOLK. *Staff*, city engineer acts as executive officer. Is closely linked with city engineering department — *Appropriation*, $1000 for incidental expenses.
OMAHA. *Staff*, building inspector acts as executive officer, part-time stenographer — *Appropriation*, $1000.
SALT LAKE CITY. *Staff*, part-time executive secretary. City engineer's office does technical work — *Appropriation*, $2000.
TOPEKA. *Staff*, none — *Appropriation*, $750 to cover incidentals.
WICHITA. *Staff*, engineer. Technical work is done by city engineering department. Good coöperation also with park department — *Appropriation*, $2000

Cities Having No Specific Appropriation

ASHEVILLE. *Staff*, city engineer acts as secretary. Engineering department does all technical work.
BALTIMORE. *Staff*, engineer of bureau of plans and surveys, 4 engineers from above bureau are engaged on city planning work.
COUNCIL BLUFFS. *Staff*, building inspector acts as secretary. City engineering and water works departments do necessary technical work.
DURHAM. *Staff*, city manager acts as secretary.
EL PASO. *Staff*, engineer-secretary. City engineer's staff does necessary technical work. Any necessary funds obtained through city engineering department.
HARRISBURG. *Staff*, none. All planning done either by consultants or city engineer.
HARTFORD. *Staff*, none. All planning work done either by consultants or by city engineer's office.
KNOXVILLE. *Staff*, part-time engineer whose salary is paid by engineering department.
LITTLE ROCK. *Staff*, none. Funds for consultant provided by city, directly.
LOUISVILLE. *Staff*, none. Mayor has promised large appropriation when necessary.
MADISON. *Staff*, city engineer acts as secretary. All necessary expenses charged either to the engineering department or to specific projects.
PROVIDENCE. *Staff*, none. City engineering department does necessary technical work. Other city departments coöperate. Special appropriations made for slight expenses.
ROCHESTER. *Staff*, director of design and construction in department of public works, secretary-civil engineer. Entire staff of above department available. Necessary funds provided by bureau of design and construction.
SEATTLE. *Staff*, executive-secretary, 1 assistant engineer. Funds obtained from city engineer's budget.
TRENTON. *Staff*, none. Planning work done in department of public works.

E. COMMENTS ON BENEFIT ASSESSMENTS

AKRON. Limitation of state constitution permitting only 50% of cost of an improvement to be assessed against benefited property, considered a serious obstacle in Ohio cities. Efforts to have this limitation removed have failed.
ASHEVILLE. In South Side Avenue extension and widening of Woodfin Street, assessments spread over a district but all parts of district assessed alike. When majority of owners of abutting property petition for a street improvement, entire cost, except intersections, assessed against abutting property.
ATLANTA. District assessments frequently made.
BALTIMORE. Street widenings and new thoroughfares generally financed by benefit assessments. City has power to assess 100% and sometimes does.
CANTON. City endeavors to assess 100% and has been successful in a few cases. Special effort made to get 60% of people concerned to petition for assessment of entire cost of street widening projects.
DALLAS. In street openings, city pays one-ninth of the cost, the remainder being assessed.
DAYTON. Under the state 50% limitation, benefit assessments used but little, because city often unable to pay its share.
DENVER. Cost of street openings and widenings frequently assessed 100% except that city at large pays for paving of intersections. Cost of acquiring civic center (2¾ million dollars) was spread only over East Denver Park District which includes downtown business area. Parks acquired through park assessment districts.
DES MOINES. Street openings and widenings normally financed by 100% assessments.
DULUTH. Street improvements usually financed by assessments of 75% of cost against benefited district and 25% against city at large, latter paying entire cost of intersections.
FORT WAYNE. Street widening projects and 2 park extensions financed by 100% assessments. City divided into 4 park assessment districts which proved unpopular. Assessments aroused bitter opposition, but some improvements accomplished.
GRAND RAPIDS. Street widenings financed by 100% assessments, except for intersections.
GREENSBORO. City at large pays 10 to 20% of cost of street widenings and new thoroughfares; remainder assessed.
HARRISBURG. When benefit assessments used, 9 out of 10 times, 100% of cost of project thus secured.
HARTFORD. Benefit assessments very successful. Large percentage of amount originally assessed collected even in central business district.
JACKSONVILLE. Approximately 60% of cost of street widenings assessed.
KANSAS CITY. Park system acquired almost entirely by 100% benefit assessments. Account given in Proceedings of National Conference on City Planning, 1917.
KENOSHA. City at large pays 52% of cost of street widenings; remainder is assessed in 3 districts, the third being about 3 blocks from the improvement.
KNOXVILLE. In Henley Street improvement, 75% of cost being assessed. Defects in state assessment laws limit assessable benefit to 75% and permit 51% of property included in a benefit district to stop proceedings in street widening.
LINCOLN. Entire cost of pavement widenings, including intersections, assessed.
LITTLE ROCK. Improvement district plan used almost exclusively for financing public improvements.
LOS ANGELES. About 89% cost first series major street plan projects being assessed.
LOS ANGELES COUNTY. Highway rights of way secured by 100% assessments.
LOUISVILLE. State laws prohibit financing of street widenings by benefit assessments.
MADISON. Benefit assessments seldom used.
MEMPHIS. Benefit assessments successful. Under front-foot method, 75% of cost of improvement assessed against abutting property and 25% against city at large. No lot may be assessed for more than 50% of its value. New thoroughfares usually financed by this method, often extending assessment along street beyond limits of the improvement. When land purchased in advance of actual street widening, sum paid plus reasonable interest added to cost of development at time of development and assessed back against

benefited property. Benefit districts may be created for opening, widening, grading, paving, and improving streets and alleys, but not more than 66⅔% of cost may be assessed on property benefited.

MILWAUKEE. Condemnation and assessment law declared unconstitutional in method of procedure by the State supreme court. About $4,500,000 in assessments now outstanding, and owing to the uncertainty as to eventual collection, people hesitate to buy or sell property affected.

MINNEAPOLIS. Benefit assessments may be used for any public improvement except schools, and if sufficient benefits can be shown, 100% of cost may be assessed. On street widenings, policy has been to assess two-thirds. Parks acquired by benefit assessments.

NEW BEDFORD. Public opposes benefit assessments for street widening so bitterly that city is usually unsuccessful in collecting. Juries award excessive damages.

NEW HAVEN. Benefit assessments used with success for street widenings. City collects about 80% of amount assessed.

OAKLAND. An assessment specialist retained to determine proportion of proposed bond issue to be devoted to each of number of street projects and amount assessable against benefited property. Method needed of pro-rating street opening and widening assessment payments over period of years instead of 30 days as now.

OMAHA. Of 6 or 7 million dollars spent for street openings, 90% paid through benefit assessments. City charter prohibits payment of more than 10% by city at large except by special vote.

PHILADELPHIA. Zone assessments not permitted.

PITTSBURGH. City has power to assess entire cost of projects but only upon abutting property. On street extensions less than 25% usually so secured. On street widenings through built-up sections, due to topography damages usually much greater than benefits.

PONCA CITY. Entire cost of roadway widenings assessed against abutting owners.

PORTLAND, ORE. Former policy of paying entire cost of improvements by benefit assessments believed to have delayed development. City will assess 50% or less of cost of 1928 street widening projects.

PROVIDENCE. Benefit assessments not used for street construction or widenings.

ROCHESTER. Previously entire cost of street projects assessed against abutting property. Now city at large pays 15 to 25% of cost of highway construction. For street paving, width of 26 feet considered normal street paved area and its cost assessed. Cost of additional width paid by city.

ST. LOUIS. City at large pays 18 to 30% of cost of street widenings. Remainder paid by benefited property. State assessment laws very good.

ST. PAUL. City has power to assess entire cost of improvements if it can show sufficient benefits except that only a 12-foot width of pavement can be assessed on abutting property on each side of street. On street widening projects where no buildings destroyed, 100% usually assessed. Where many buildings destroyed, 30 to 50% assessed. Park reservations acquired by benefit assessments.

SALT LAKE CITY. Graded district assessments not permitted.

SAN DIEGO. Entire cost of street widenings and new thoroughfares usually paid by benefit assessments.

SPRINGFIELD. Opinion expressed that benefits more equitably taken care of through taxation than benefit assessments, which are difficult to collect. In central areas estimated that city collects only 30 to 40% of amounts assessed.

TOPEKA. For many years entire cost of acquiring neighboring parks met by benefit assessments. Street widenings can be undertaken only on petition of property owners affected and entire cost must be assessed.

WICHITA. About 95% of cost of street openings and widenings paid by benefit assessments. Although city has necessary authority, parks not thus acquired.

WILMINGTON. State laws do not authorize benefit assessments for street widenings and openings.

WHITE PLAINS. About 50% cost street widenings assessed against benefited property.

F. MUNICIPAL REGULATION OF PLATTING: AREA OF CONTROL

Control Only Within City Limits

COLORADO.* BOULDER. But all land within city limits platted and no control outside.
COLORADO SPRINGS. Plat approval of council required (through city engineer), but this amounts to nothing for no new plats coming within city limits.
DENVER. Only through city engineer but has been well handled over long period.
CONNECTICUT. BRIDGEPORT. Theoretically exercised by city engineer within city limits, but all land has been platted.
GEORGIA. SAVANNAH.
ILLINOIS. CHICAGO.
IOWA. COUNCIL BLUFFS. City has authority to control platting outside city limits, but not exercised.
KANSAS.** TOPEKA. Exercised only within city limits and over contiguous territory. City can show many examples of bad subdivision due to lack of adequate control over greater area.
WICHITA. Within city limits and over contiguous territory.
MARYLAND. BALTIMORE. At present no platting control outside city limits. Act creating "Street Planning Commission" in Baltimore County which coöperated with city on subdivision control repealed in 1927 as political move.
MASSACHUSETTS. BOSTON. NEW BEDFORD. SPRINGFIELD.
MICHIGAN. GRAND RAPIDS.
LANSING. County authorities coöperate to some extent in controlling development outside city limits.
MINNESOTA. DULUTH. No subdivision of importance taking place outside, and only little inside city limits.
MINNEAPOLIS. No platting control exercised beyond city limits at present, but city may exercise control 3 miles outside as soon as comprehensive plan for city and this territory, now in preparation, completed.
MISSOURI. KANSAS CITY.
NEBRASKA. LINCOLN. City endeavors to extend limits to include new plats and thus control them.
NEW JERSEY. CAMDEN. No control outside city limits and no new development within.
JERSEY CITY. Practically all the land is platted within city where control may be exercised.
NEWARK. Practically all land (except meadows) platted within city limits.
PATERSON. Control within city amounts to nothing as no tracts unsubdivided.
TRENTON. No development taking place within city limits.
NEW YORK. ALBANY. BUFFALO. SCHENECTADY. WHITE PLAINS.
NORTH CAROLINA. ASHEVILLE. Never any real control over land subdivision. Control for 1 mile outside city legal, but has not been exercised. Need of it recognized.
NORTH DAKOTA. BISMARCK. FARGO.
PENNSYLVANIA. PHILADELPHIA.
PITTSBURGH. No control outside city limits by city but plats controlled by Allegheny County Planning Commission.
RHODE ISLAND. PROVIDENCE. Control of plats outside city limits needed.
WESTERLY.
SOUTH CAROLINA. CHARLESTON. Platting control even within city limits not adequate.

* The new Colorado city planning enabling act extends the area of platting control to 3 miles outside city limits.

** Under 1929 amendment to state platting act authority is given Kansas to control land subdivision for 2 miles outside city limits.

TENNESSEE. KNOXVILLE.
WASHINGTON. SEATTLE. Limited area of control is serious handicap.
SPOKANE.

Control ½ Mile Outside City Limits

DELAWARE. WILMINGTON. Plat control amounts to little for most of development taking place outside the ½-mile limit.

Control 1 Mile Outside City Limits

IOWA. DES MOINES. County engineer often voluntarily submits plats outside this area.
NORTH CAROLINA. DURHAM. GREENSBORO. RALEIGH.

Control 1½ Miles Outside City Limits

WISCONSIN. MADISON. Plats outside city must be approved by both city and town boards.
MILWAUKEE. Platting control for 3 miles authorized by state law, but attorneys rule that Milwaukee has authority for only 1½ miles. Joint control of city and county in that area.

Control 2 Miles Outside City Limits

(See footnote on p. 314)

Control 3 Miles Outside City Limits

CALIFORNIA. LOS ANGELES. County planning commission extends control throughout county.
OAKLAND. SACRAMENTO. SAN DIEGO. SAN FRANCISCO.
COLORADO. (See footnote on p. 314)
KENTUCKY. LOUISVILLE. Platting control ineffective because no plan, and property owners easily evade control by selling by metes and bounds.
MICHIGAN. DETROIT. Wayne County strict in approving plats in accordance with Master Plan, so Detroit not obliged to enforce 3-mile provision very rigidly.
NEBRASKA. OMAHA.
NEW YORK. SYRACUSE. County court sometimes insists on approval at greater radius than 3 miles outside city.
OHIO. AKRON. CANTON. CINCINNATI. CLEVELAND. COLUMBUS. DAYTON. TOLEDO.
OKLAHOMA. OKLAHOMA CITY. Many subdividers get approval of regional plan commission outside required 3-mile limit, as it is a valuable sales argument.
PONCA CITY. TULSA.
PENNSYLVANIA. ALTOONA. HARRISBURG. JOHNSTOWN.
TENNESSEE. CHATTANOOGA.
WISCONSIN. KENOSHA.

Control 5 Miles Outside City Limits

INDIANA. EVANSVILLE. FORT WAYNE. INDIANAPOLIS. WEST LAFAYETTE.
TENNESSEE. MEMPHIS. Outside city, plats controlled jointly by city and county. No control of lot sizes outside city limits.
TEXAS. DALLAS. EL PASO. FORT WORTH. HOUSTON.
VIRGINIA. RICHMOND.

Control 6 Miles Outside City Limits

GEORGIA. ATLANTA. 6 miles outside city limits in Fulton County. None outside in De Kalb County.
OREGON. PORTLAND. Plats in 6-mile area may be approved by Portland city planning commission or nearest city engineer. City engineer of another city often approves plats in this 6-mile area, nullifying control of Portland.

Control 10 Miles Outside City Limits

VIRGINIA. NORFOLK. Approval of city engineer required up to 10 miles outside.

Miscellaneous Areas of Control

CALIFORNIA. LOS ANGELES COUNTY. Throughout county in unincorporated areas.
SANTA BARBARA COUNTY. Throughout county in unincorporated areas.
DISTRICT OF COLUMBIA. WASHINGTON. Throughout District.
FLORIDA. JACKSONVILLE. Platting control extends everywhere throughout state under control of counties but type of control inadequate. Within cities, control exercised by both city and county.
GEORGIA. GLYNN COUNTY. Throughout county in unincorporated areas.
MARYLAND. MARYLAND-NATIONAL CAPITAL REGION. Platting laws in 2 counties within the District differ and conflict with the District platting control powers.
MINNESOTA. ST. PAUL. County only has jurisdiction over every plat in county, including incorporated territory.
NEW YORK. ROCHESTER. Platting control exercised as far as city planning commission may see fit. Enforced through county clerk.
WISCONSIN. MILWAUKEE COUNTY. Throughout county in unincorporated areas.

G. ANALYSIS OF MUNICIPAL AND COUNTY REGULATIONS FOR SUBDIVISION CONTROL

By HOWARD K. MENHINICK

PLANNING COMMISSIONS throughout the United States are adopting platting regulations to facilitate the control of land subdivision. These regulations help a developer to serve at the same time his own interests and the interests of the community. They enable the planning commission to determine whether a tract of land is well subdivided. They reduce to a minimum indefiniteness and arbitrariness in requirements.

In the ensuing notes, all cities having an identical requirement will seldom be listed, for this would lead to a frequent grouping of those that have obviously taken provisions from the same ordinance. Des Moines, Ia., Oakland, Riverside, Sacramento, and Santa Barbara County, Cal., and Richmond, Va., would often appear together as would the Chicago Regional Planning Association's model platting ordinance, Highland Park and Saint Charles, Ill., and Kenosha and Kenosha County, Wisconsin. Haverhill, Newton, and Springfield, Mass., would compose a third group. No attempt will be made to evaluate restrictions, for this is a fact-finding study rather than a critical analysis.

The platting regulations of the following cities and counties have been reviewed.* When known, the year of adoption of the regulations follows the place name.

Akron, O., 1920
Altoona, Pa., 1926
Atlanta, Ga.
Canton, O., 1928
Chicago Region, Ill. (Model Ordinance)
Cincinnati, O., 1925
Cleveland, O., 1925
Dayton, O., 1925
Des Moines, Ia., 1929
Detroit, Mich., 1921
District of Columbia, 1923
DuPage County, Ill., 1926
Durham, N. C.
Glynn County, Ga., 1928
Harrisburg, Pa., 1924
Haverhill, Mass., 1917
Highland Park, Ill., 1927
Jamestown, N. Y., 1926
Kenosha, Wis., 1924
Kenosha County, Wis., 1927
Lake Bluff, Ill., 1924
Longmeadow, Mass., 1921
Lucas County, O.
Memphis, Tenn.
Milwaukee, Wis., 1924
Newton, Mass., 1925
Oakland, Cal.
Oklahoma City, Okla.
Portland, Ore., 1919
Reading, Pa., 1927
Richmond, Va., 1928
Riverside, Cal., 1927
Rochester, N. Y., 1922
Sacramento, Cal.
Saint Charles, Ill., 1928
San Diego, Cal.
Santa Barbara County, Cal.
Springfield, Mass., 1922
Wayne County, Mich., 1925
Wichita, Kan., 1929

* The provisions of the Los Angeles regulations have not been analyzed because they are undergoing revision at the present time.

GROUP I. INTRODUCTORY

1. PRESENTATION OF REGULATIONS

The Platting Guide of Milwaukee, Wis., is a printed booklet containing not only the platting regulations but also reproductions of diagrams and photographs illustrating both desirable and undesirable types of development. A plan of the proposed metropolitan park system and principal thoroughfares is folded in the back of this guide. Newly-platted lands must conform in the main to this plan.

The regulations of Altoona, Pa., Cincinnati and Dayton, O., DuPage County, Ill., and Riverside, Cal., are printed as booklets. The Haverhill, Newton, Springfield, Mass., Highland Park, Ill., and Oakland, Cal., regulations are printed on sheets.

Not all platting rules are printed separately. Those of Atlanta, Ga., are in the 1922 Annual Report of the City Planning Commission. Glynn County, Ga., and Memphis, Tenn., have published their regulations with their zoning ordinances. Saint Charles, Ill., has printed its officially adopted city plan, zoning ordinance, building code, and subdivision control ordinance in one convenient-sized book. The Code of Ordinances and Charter of the City of Durham, N. C., printed in 1928, contains subdivision regulations. Nearly every published comprehensive city plan report and nearly every major street report contain proposed platting regulations.

The subdivision rules of Canton O., Des Moines, Ia., Richmond, Va., Santa Barbara County, Cal., and Wichita, Kan., and the model ordinance prepared by the Chicago Regional Plan Association are mimeographed. This latter ordinance will hereafter be referred to as the Chicago Regional Model. The regulations of Oklahoma City, Okla., and Reading, Pa., are blueprinted.

The suggested set of rules in "Land Subdivision and the City Plan" by Messrs. Swan and Tuttle, published as a supplement to the July, 1925, issue of the *National Municipal Review*, and the regulations of Oakland, Riverside, Sacramento, and Santa Barbara County, Cal., are accompanied by explanatory notes giving the purpose of each rule. These notes establish the reasonableness of the requirements. They should be of particular interest to anyone framing a set of regulations.

2. DEFINITIONS

Few subdivision rules include definitions. The Chicago Regional Model and Jamestown, N. Y., use substantially the definition of land subdivision given by Messrs. Swan and Tuttle. "A subdivision is any change, alteration, or rearrangement in the boundary or division lines of a parcel of property or street." Lucas County, O., defines "subdivision" as "the division of a lot, tract or parcel of land into two or more lots, plats, sites, or other divisions of land for the purpose, whether immediate or future, of sale or of building development. It includes re-subdivision and when appropriate (refers) to the process of subdividing or the land or territory subdivided. It includes all changes in street, lot, or lot lines which in any way affect the public health, public morals, public safety, or general welfare." Altoona, Pa., gives definitions for such terms as street, driveway, street pavement, allotment, and subdivision. Although the two latter terms are said to be the same, they are defined separately and differently.

3. PROCEDURE

Detroit, Mich., and Riverside, Cal., list in a systematic manner the steps the subdivider must take to secure plat approval. Altoona, Pa., gives the procedure with the final plat, and Highland Park, Ill., with the preliminary plat.

4. PRELIMINARY PLATS

The submission of a preliminary plat is an almost standard requirement benefiting both the city and the subdivider because it permits a study and discussion of the plan

at a time when changes can be made with a minimum amount of effort and money. Most cities permit the preliminary plan to be drawn in pencil at a suitable scale, usually not less than one inch equals 200 feet, and require only the information they consider necessary for study purposes. Approval of a preliminary plat does not constitute an acceptance of the subdivision, and normally an approval becomes void if the final plat is not submitted within a definite period — 90 days in Detroit, Mich., and Lucas County, O., 6 months in Dayton, O., and one year in Canton, O. Santa Barbara County, Cal., requires with both the preliminary and final plat a statement giving the total area of the tract in acres, the net area devoted to lots, streets, and parks, and the total lot frontage in feet for residential, business, and industrial uses. These facts will indicate how effectively the land has been planned and will be valuable subdivision records.

5. FINAL PLATS

Final plats are usually submitted on tracing cloth in specified sheet sizes which are different in nearly every city. In addition to such a tracing, Oklahoma City requires an original drawing made with black India ink upon a good quality, white, cold-pressed, double-mounted drawing paper, 21 inches by 36 inches in size. Detroit, Mich., permits the filing of a 17 by 21-inch photostat reproduction. Scales of one inch equals 40, 50, or 100 feet are usual. Data required on the final plat are invariably specified in detail. To secure uniformity in presentation, Dayton, O., has included a set of recommended map symbols. The submission of street grading plans and profiles with the final plat is frequently required. In Lucas County, O., subdividers submit a key map at a scale of one inch equals 400 feet or less, showing the relation of the proposed subdivision to the surrounding territory. Cincinnati intends to make a similar requirement. Permanent engineering monuments are invariably shown on final plats. Most cities require standard monuments set in the ground or a certified check to cover their cost. Akron, O., stipulates five dollars per monument. Iron pipes from one-half inch to one inch in diameter and granite or concrete posts not less than 4 inches square with a minimum length of 30 inches are standard types.

GROUP II. STREETS

6. RELATION OF PROPOSED STREETS TO ADJOINING STREET SYSTEM

The arrangement of proposed streets to continue the principal existing streets in adjoining subdivisions at the same or a greater width and in no case less than the minimum width specified is a frequent requirement. Santa Barbara County, Cal., insists on provisions to continue a reasonable number of utility lines. Richmond, Va., checks a proposed street arrangement to be certain it will cause no hardship when adjoining unsubdivided land is developed.

7. STREETS WHERE SUBDIVIDED AREAS ARE LARGE

Many regulations specify that when an area is subdivided into tracts larger than normal lots, these tracts shall be so platted as not to interfere with the opening of major streets and the ultimate extension of minor ones. The Chicago Regional Model requires platting in such a manner that streets may be laid out along lot lines.

8. STREET ALIGNMENT

Wichita, Kan., encourages street curves, especially in irregular topography, but insists that curves too sharp to permit reasonable visibility be avoided. Cincinnati, O., has established a minimum radius of curvature of 200 feet on the center line of main and secondary thoroughfares, 100 feet on minor streets, and 50 feet on local service streets. Altoona, Pa., requires a radius of curvature of 300 feet for main thoroughfares, 200 feet for secondary thoroughfares, and 50 feet for minor and local streets. Dayton, O., specifies that the curves on major streets shall be of such radius as will assure 300 feet of clear visibility at the center line of the street and gives a formula for determining it. Streets

with reverse curves must have a tangent connecting the curves. Oklahoma City requires the elimination of street jogs by curves and will not accept streets with "broken-back" curves nor with lines which are not parallel. Many regulations, as those of Lucas County, O., have detailed engineering specifications for the enlargement of street intersections, for the deflection of streets within the block, and for the widening of streets at curves.

9. STREET INTERSECTIONS

Most cities require that streets intersect each other as nearly at right angles as is practicable. In Wichita, Kan., minor streets should approach major streets at an angle of not less than 80 degrees nor more than 100 degrees. Jamestown, N. Y., allows the angle included between adjoining street lines to be not less than 30 degrees nor greater than 150 degrees and has special provisions for the enlargement of street intersections. Longmeadow, Mass., provides that at street intersections with an included angle of less than 80 degrees, a curve with a radius of not less than 15 feet shall be laid out on the acute-angled side. Milwaukee, Wis., recommends that streets converging at one point be reduced to the least practicable number.

10. CORNER RADII

It is customary for cities to require corners to be rounded at major street intersections, at acute-angled corners, and at other points likely to be dangerous, using the following radii: Akron, O., 5 feet; Canton, O., 10 feet; Saint Charles, Ill., 12 feet, except at important corners where it shall be not less than 24 feet; Kenosha, Wis., Newton, Mass., and Sacramento, Cal., 15 feet; Altoona, Pa., 20 feet on main thoroughfares, 15 feet on secondary and minor streets, and 10 feet on all others; San Diego, Cal., 25 feet where a secondary street intersects an important thoroughfare and 15 feet at all other intersections; Dayton, O., 20 feet, normally, but 25 feet if the interior angle is less than 60 degrees, and whenever the interior angle is less than 135 degrees, it is recommended that the corner be rounded with a minimum radius of 8 feet.

11. THE CARRYING OF STREETS TO BOUNDARY LINES

The Lucas County, O., regulations are as follows: "When a new subdivision adjoins unsubdivided land capable of being subdivided, then new streets shall be carried to the boundaries of the tract proposed to be subdivided. Buffer lots conditionally dedicated, may be located at the property boundary."

Milwaukee, Wis., rules: "No subdivision showing reserve strips controlling the access to public ways, or showing strips of land which will not prove taxable for special assessments will be approved, except where the control and disposal of the land is placed definitely within the city's jurisdiction."

Altoona, Pa., Richmond, Va., and Santa Barbara County, Cal., have similar regulations.

12. STREETS IN RELATION TO RAILROADS

The Chicago Regional Model, Saint Charles, Ill., and Kenosha County, Wis., require that whenever a subdivision is laid out adjacent to a railroad right of way, a street shall be placed parallel to the railroad. Riverside and Sacramento, Cal., have the same requirement when the topography or zoning plans indicate that such property will be used for industrial purposes. The Chicago Regional Model specifies that the intersection of the center line of the parallel street with that of any street which crosses the railroad shall be not less than 150 feet from the line of the railroad right of way, and recommends that the intervening land be dedicated for park purposes but permits its use for industrial, commercial, or residential purposes. Kenosha County, Wis., also specifies 150 feet; Saint Charles, Ill., a distance to be determined by the Plan Commission, but not less than 40 feet.

If there is a distance of at least 100 feet, the property may be divided into lots, but if it is less than 100 feet, the property shall be dedicated as a park buffer. Riverside and Sacramento, Cal., specify a distance of at least the depth of one lot. These last two cities and Saint Charles, Ill., provide that if the question of a railroad crossing is involved, the street arrangement shall be made to facilitate the development of a crossing that will be as safe as feasible and provide for a grade separation either by viaduct or underpass if deemed feasible.

13. DEDICATION OF HALF-STREETS

Richmond, Va., and Saint Charles, Ill., permit the dedication of half-streets where a subdivision adjoins undeveloped property. Dayton, O., provides in addition that wherever there already exists a dedicated and recorded half-street or alley on an adjoining plat, the other half must be dedicated on the proposed plat to make the street or alley complete. Lucas County, O., permits the dedication of a half-street with a conditional dedication of a strip two feet wide on the side next to the unplatted land, this conditional dedication to become effective when the whole street is dedicated. In the meantime, it may not bar owners of adjacent unplatted property from making service taps to water supply or sewerage lines located in the unconditionally dedicated half-street.

14. DEAD-END STREETS

Dead-end streets or culs-de-sac are almost universally discouraged and permitted only when a normal street arrangement is impracticable. Cincinnati, O., specifies that they shall normally be not over 600 feet in length. Dayton, O., will not approve them if they exceed 400 feet in length. When they are permitted, a turn-around at the closed end is invariably demanded. The required radius of this turn-around is 25 feet in Altoona, Pa.; 30 feet in Dayton, O., and Richmond, Va.; 30 feet plus customary planting strips and sidewalk in Jamestown, N. Y.; 30 feet exclusive of sidewalk space in Cleveland, O., although a rectangular space 25 feet wide and 80 feet long exclusive of sidewalk space, with the 80-foot dimension placed symmetrically perpendicular to the line of the street, may be used; 40 feet in Santa Barbara County, Cal.; and 50 feet in Lucas County, Ohio. Dayton, O., requires ample turning space for automobile trucks. Lake Bluff, Ill., permits either a circular or Y-shaped turn-around.

15. STREET WIDTHS

The minimum widths of streets permitted are as follows: 32 feet with a minimum roadway of 24 feet, along steep canyons or hillsides in San Diego, Cal.; 40 feet in Cincinnati, O., and Newton, Mass.; 40 feet if serving less than 20 lots, in Milwaukee, Wis.; 40 feet with 50 feet recommended in Canton, O.; the somewhat doubtful minimum of 50 feet in Richmond, Va., since there is a provision that if a street less than 50 feet is permitted, the corners shall be rounded on the street lines with a radius of not less than 10 feet; 50 feet in the District of Columbia providing there is space between streets for two tiers of lots at least 60 feet deep plus alley facilities; 50 feet in Cleveland, O., providing a minimum depth of lot of 100 feet can be obtained; 50 feet in Altoona, Pa., Dayton, O., Des Moines, Ia., Kenosha, Wis., and Springfield, Mass.; 50 feet but in general 60 feet required in Lucas County, O., and Sacramento, Cal.; 54 feet in Riverside, Cal.; 60 feet, except by special permit, in Saint Charles, Ill.; 60 feet in Detroit and Wayne County, Mich., Oklahoma City, Santa Barbara County, Cal., and Wichita, Kan.; 66 feet in the Chicago Regional Model and in Kenosha County, Wis.

In all recent platting regulations, the required width of major thoroughfares is the width shown on the major street plan. In Detroit and Wayne County, Mich., this makes superhighways 204 feet wide, major thoroughfares 120 feet, and intermediate thoroughfares 86 feet. Riverside, Cal., specifies that in business zones the required major street

width shall be increased 10 feet on each side to provide for angular parking. Saint Charles, Ill., requires that every street along business frontage shall be not less than 94 feet and generally 108 feet wide. There are special width requirements for minor streets entering major streets or business streets. Santa Barbara County, Cal., specifies that if there is no major highway plan, the minimum width for major highways shall be 80 feet, increased 10 feet on each side if there is business frontage. Wichita, Kan., specifies that Federal highways outside the city shall be not less than 100 feet wide. Newton and Springfield, Mass., require major streets to be 70 feet or more in width. Cleveland, O., expects major streets not less than 100 feet wide at intervals not greater than 6000 feet, and streets not less than 80 feet wide at intervals not greater than 3000 feet. Oklahoma City rules that main boulevards and highways within the city limits and business streets shall be not less than 100 feet wide. Cincinnati, O., specifies that, in general, main thoroughfares shall be 90 feet and secondary thoroughfares 66 feet wide.

16. ROADWAY WIDTHS

Cincinnati, O., has established a standard minimum width of roadway of 56 feet for main thoroughfares, 40 feet for secondary thoroughfares, 27 feet for minor streets, and 20 feet for local streets. Dayton, O., uses the above roadway widths for minor and local streets, and for other streets stipulates 10 feet of roadway for each needed traffic lane with a provision that 9 feet may be allowed in exceptional cases. The apportionment of the street width to the various parts is made subject to the approval of the Plan Board and the Supervisor of Plats. The regulations of Altoona, Pa., and Milwaukee, Wis., contain tables giving required roadway widths under various conditions.

17. BUILDING LINES

Canton, O., Des Moines, Ia., Kenosha, Wis., Richmond, Va., Riverside, Sacramento, and Santa Barbara County, Cal., require building lines on all residential property in accordance with the zoning ordinance. Outside the city limits, Richmond, Va., and Riverside, Cal., require building lines to fit the needs of each subdivision, while Canton, O., requires a minimum front yard of 15 feet and a greater one if necessary. Where there is no zoning ordinance, Santa Barbara County, Cal., stipulates a minimum front-yard building line 50 feet from the center line of the street upon which the lot faces. Harrisburg, Pa., requires building lines wherever they are considered necessary. On all but business lots, Detroit specifies a building line at least 15 feet from the street line, and more than 15 feet where the depth of lots or neighborhood conditions warrant it. Lucas County, O., and Oklahoma City insist on a minimum front yard of 25 feet.

18. STREET GRADES

Canton, O., Newton, Mass., and Jamestown, N. Y., have established a minimum street grade of 0.5 per cent. Most cities name a maximum grade for major streets and a slightly greater one for minor streets. Riverside, Cal., specifies 3 per cent and 5 per cent. Canton and Akron, O., and Milwaukee, Wis., put it at 5 per cent and 10 per cent; Saint Charles, Ill., at 5 per cent and 7 per cent; Cincinnati, O., at 7 per cent and 14 per cent. Jamestown, N. Y., permits a maximum of 5 per cent; Santa Barbara County, Cal., 6 per cent; and Newton, Mass., 12 per cent. Cincinnati, O., and the Chicago Regional Model require changes in grade to be connected by vertical curves of definite length or radius. Springfield, Mass., is one of a number of cities that, before a plat will be approved, require statements from all abutting property owners relieving the city from all damages that may be caused by changes in line or grade on any of the streets as proposed.

19. ACCESS TO STREETS ACROSS DITCHES

The Chicago Regional Model, Des Moines, Ia., and Kenosha County, Wis., require the subdivider to provide access to all proposed streets across water courses or ditches in a standard manner approved by the proper engineering authority.

20. STREET AND SUBDIVISION NAMES

In most cities, a proposed street obviously in alignment with another already existing and named must bear the same name. Santa Barbara County, Cal., and Richmond, Va., specify in addition that new street names shall not duplicate existing street names. Springfield, Mass., prohibits the placing of names of proposed streets on plans until such names have been approved. Glynn County, Ga., will not permit proposed subdivision names to duplicate the names of those already existing.

21. STREET TREES

Canton, O., the Chicago Regional Model, Des Moines, Ia., Detroit, Mich., and Saint Charles, Ill., do not insist on the planting of trees, but if trees are to be planted they require the submission of planting plans for their approval, particularly as to location and variety of trees. In any case, Riverside, Cal., requires a definite planting plan approved by the Board of Park Commissioners. Cincinnati, O., specifies that trees of a type to be approved by the Board of Park Commissioners shall be planted not over 60 feet apart on each side of every street, except at intersections. In Akron, O., trees of a size and variety and in the place and under the conditions prescribed by the Commission shall be planted. Before final approval will be endorsed on the record plat, a satisfactory bond shall be furnished to cover the cost of completing such planting and the maintenance of said trees for a period of two years. There are several pages of street tree planting specifications, adopted June 15, 1920, in the Akron regulations.

22. ALLEYS

In Detroit, Mich., the Commission determines whether an easement or an alley system is more suitable for an allotment. Portland, Ore., discourages alleys but permits them in business sections. Oklahoma City requires alleys in business blocks but leaves their use optional in residential sections. The District of Columbia requires alleys so that, as far as possible, each lot shall abut on one. Apparently to discourage the erection of dwellings fronting on alleys, Glynn County, Ga., permits alleys only when the depth of a lot does not exceed 120 feet. Lucas County, O., permits them if the lot depth is not greater than 150 feet. Oakland, Cal., specifies that where alleys are provided, the Commission may require restrictive covenants from the owner to prevent the building of any structure except the usual outhouses to front on an alley. Harrisburg, Pa., has a clause requiring that the erection of buildings to be used for habitation shall be so restricted that no such building shall be constructed nearer than 30 feet to the center line of any service alley or highway less than 40 feet in width unless the building fronts on a highway 40 feet or more in width.

Santa Barbara County, Cal., and Saint Charles, Ill., require alleys in the rear of all commercial lots. The Chicago Regional Model requires alleys where lots are less than 40 feet wide. Saint Charles, Ill., and Richmond, Va., require them where lots are less than 50 feet wide. Wichita, Kan., requires alleys in the rear of all lots facing on section and half-section line streets and within one block of their intersection unless the streets in front of such lots are made not less than 100 feet wide. Alleys in all other locations are optional.

The District of Columbia permits alleys with a minimum width of 10 feet within the city limits and 15 feet outside the city limits of Washington, D. C. Practically without

exception, those cities that require a greater alley width in business sections than in residential sections require a 20-foot alley in the former. Examples are Des Moines, Ia., Detroit, Mich., Lucas County, O., and Sacramento and Santa Barbara County, California. Kenosha, Wis., requires an 18-foot alley under the above conditions.

In residential sections, Kenosha, Wis., permits 15-foot alleys with an easement and building line of at least 1½ feet on each side. Detroit, Mich., requires 18-foot alleys. Des Moines, Ia., permits 12-foot alleys with a 3-foot easement on each side, or else 16-foot alleys. Lucas County, O., specifies 15-foot alleys with a 2½ foot easement; Sacramento, Cal., 16-foot alleys with a 3-foot easement; Santa Barbara County, Cal., 16-foot alleys; Wichita, Kan., 14-foot alleys.

Des Moines, Ia., Kenosha, Wis., Lucas County, O., Santa Barbara County, Cal., and Wichita, Kan., require a 5-foot cut-off at acute or right angle alley intersections on alleys of lesser width in the residential sections. Riverside and San Diego, Cal., require 20-foot alleys with a 10-foot cut-off.

Of those cities which do not require different alley widths in residential and business sections, Richmond, Va., and Glynn County, Ga., require 16-foot alleys. Altoona, Pa., Cincinnati and Dayton, O., and Kenosha County, Wis., require 18-foot alleys. Milwaukee, Wis., requires alleys 18 to 20 feet in width. The Chicago Regional Model, Oklahoma City, Portland, Ore., and Saint Charles, Ill., require 20-foot alleys.

23. EASEMENTS

Almost without exception, cities require rear easements and building lines if no alleys are provided. They are usually required on all rear lot lines and side lines, where necessary, and may be required of greater than the usual specified width for trunk line utilities. In each case below, the figure given is the easement required on each lot, being thus half the total width of the rear easement. Lucas County, O., requires 3 feet; Altoona, Pa., Dayton, O., Kenosha and Kenosha County, Wis., Richmond, Va., and Sacramento, Cal., 4 feet; Portland, Ore., Riverside, Cal., and Wichita, Kan., 5 feet; Detroit, Mich., and Milwaukee, Wis., 6 feet; the Chicago Regional Model and Saint Charles, Ill., 10 feet.

24. REGULATIONS FOR UTILITIES AND IMPROVEMENTS

Some cities specify as do Cleveland, O., and Saint Charles, Ill., that a plat will not be approved unless it is possible to supply water, drainage, and sewerage facilities without unreasonable delay.

Durham, N. C., Harrisburg, Pa., New Bedford, Mass., and many other cities refuse to supply utilities to unapproved plats. Durham, N. C., will neither accept nor maintain streets in unapproved plats.

A number of cities do not require the installation of utilities before the approval of a plat but, if the utilities are installed, require plans and installations to be approved by proper city authorities. Cleveland and Dayton, O., are examples of cities with this requirement.

Canton, Cincinnati, and Cleveland, O., the Chicago Regional Model, Des Moines, Ia., Detroit, Mich., Kenosha, Wis., and Memphis, Tenn., require the grading of streets and alleys before a plat will be finally accepted. Canton and Cleveland, O., require sidewalk construction on plats within the city limits.

Canton, O., requires the installation of necessary storm water drainage. When proper outlets are available, Memphis, Tenn., requires the installation of sewers at once. Cincinnati, O., requires the installation of storm water and sanitary or combined sewers, storm water inlets, house connections from sewers to beyond curb lines, the laying of water mains with service pipes to points beyond the curb, and the construction of the roadway to the approved grade. All the above construction must be carried out under the direction of the Department of Public Service in strict accordance with standard city specifications for the various kinds of improvements. The City Engineer will assign a

city inspector to the work for such time as may be necessary to insure full compliance with specifications, and the wages of such inspector are paid from a sum for inspection to be deposited by the subdivider with the Department of Public Service. Cincinnati, O., will not approve plats nor accept the dedication of any streets until the improvements have been made as outlined above. These requirements apply only within the city limits.

Lake Bluff and Saint Charles, Ill., require all wires to be either placed underground or strung on poles placed in alleys or easements along the rear property lines.

GROUP III. BLOCKS AND LOTS

25. SIZE OF BLOCKS

Altoona, Pa., requires blocks not less than 200 feet nor greater than 600 feet long. Akron, O., Newton and Springfield, Mass., specify blocks not less than 400 feet nor greater than 600 feet. Oklahoma City requires blocks to be usually not in excess of 400 feet. In residential sections, blocks more than 600 feet long will not be approved. Milwaukee, Wis., requires blocks not less than 500 feet nor more than 900 feet. Detroit, Mich., states that blocks shall be not less than 660 feet nor more than 880 feet. Des Moines, Ia., requires blocks not greater than 660 feet. The Chicago Regional Model, Saint Charles, Ill., Dayton, O., and Kenosha County, Wis., not greater than 800 feet; Lucas County, O., not greater than 880 feet; Canton and Cincinnati, O., and Wichita, Kan., not greater than 900 feet; Richmond, Va., Riverside, Sacramento, and Santa Barbara County, Cal., not greater than 1000 feet. Riverside and Sacramento, Cal., further specify that a crosswalk shall be provided near the center of all blocks over 750 feet long.

Detroit, Mich., and Milwaukee, Wis., require blocks wide enough to allow for two tiers of lots with an alley or easement between. Jamestown, N. Y., demands blocks not less than 200 feet nor more than 300 feet wide; Lucas County, O., not less than 220 feet; the Chicago Regional Model not less than 250; Kenosha, Wis., approximately 250 feet in new subdivisions at a distance from existing subdivisions; Sacramento, Cal., 240 feet to 300 feet; Oklahoma City, not greater than 300 feet.

26. SIZE OF LOTS

Cincinnati, O., regulates the size of lots in the following manner: "The size and shape of lots shall be such as the Planning Commission shall deem proper for the locality where the subdivision is located, due consideration being given to the zoning district in which the tract is situated." The regulations of Saint Charles, Ill., are substantially the same. The Cincinnati Planning Commission has resolved to accept no lots with an area of less than 3500 square feet.

By far the majority of cities have established a minimum lot width of 40 feet. Canton, O., Des Moines, Ia., Detroit, Mich., Richmond, Va., and Sacramento, Cal., are examples. The District of Columbia permits 16-foot lots. In exceptional cases, Dayton, O., permits 35-foot lots, though it normally requires 40 feet. Santa Barbara County, Cal., permits 40-foot lots though it normally requires 60 feet. Akron, O., requires 45 feet. Kenosha County, Wis., and Newton and Springfield, Mass., specify 50 feet. Riverside, Cal., Jamestown, N. Y., and Oklahoma City require 50 feet for residential lots. Riverside, Cal., requires business lots to be multiples of 45 feet or 60 feet. Santa Barbara County, Cal., requires business lots to be at least 20 feet wide. Jamestown, N. Y., and Oklahoma City require 25 feet for business lots.

The minimum depth of lot permitted in the District of Columbia is 60 feet. Kenosha and Kenosha County, Wis., Springfield and Newton, Mass., Richmond, Va., and Santa Barbara County, Cal., and Wichita, Kan., require the lot depth to be not less than 100 feet. Altoona, Pa., and Jamestown, N. Y., specify lots not less than 100 feet nor more than 150 feet deep. Riverside, Cal., requires business lots to be as nearly as possible 100 feet deep. Lucas County, O., sets lot depths at 110 feet to 150 feet. Des Moines, Ia., Detroit, Mich., and Milwaukee, Wis., require 120 feet as a minimum. Riverside, Cal., has a

120-foot minimum for residential lots. Sacramento, Cal., sets 120 feet as the normal minimum with a 150-foot minimum on major streets. The Chicago Regional Model establishes 125 feet as the minimum. Oklahoma City has a minimum of 140 feet for business lots and a minimum of 150 feet for residential lots, with 10 feet deductible if an alley is provided.

Required lot areas start with the 720 square feet required for triangular lots in the District of Columbia; 2500 square feet in the mercantile and industrial districts of Jamestown, N. Y.; 3500 square feet outside the city limits of Canton, O., where there is no zoning; 4000 square feet in Santa Barbara County, Cal.; 4400 square feet in Lucas County, O.; 4800 square feet in Des Moines, Ia., Richmond, Va., and Sacramento, Cal.; 5000 square feet in the Chicago Regional Model (where there is no zoning), in Dayton, O., Kenosha, Wis., and in residential sections of Jamestown, N. Y., and Riverside, Cal.; 6000 square feet in Kenosha County, Wisconsin. Canton, O., and the Chicago Regional Model require that the minimum area of lots within territory that is zoned shall be as specified in the zoning ordinance.

27. LOT LINES

A majority of the cities have a rule similar to the following one from Detroit, Mich.: "All side lines of lots should be at right angles to straight street lines, or radial to curved street lines, unless a variation from this rule will give a better street and lot plan." Dayton, O., specifies in addition that lot lines should follow municipal boundary lines wherever practicable.

28. LOTS WITH DOUBLE FRONTAGE

Most cities state that lots with double frontage shall be avoided. Santa Barbara County, Cal., says that double frontage lots having a depth of less than 200 feet will not be approved except where topographic conditions admit no other form of platting. Wichita, Kan., says that reversed frontage lots at street intersections shall be avoided, but if provided, the corner lots must have sufficient depth so that a reasonable front yard may be provided on both street frontages to protect similar frontage on adjacent lots in each direction.

29. CORNER LOTS

The corner lot regulations of Des Moines, Ia., Riverside and Sacramento, Cal., are typical and are substantially as follows: "Corner lots shall have extra width sufficient to permit the maintenance of building lines on both front and side. In normal cases, the width required will not be less than the amount of the established building line on the side street plus the irreducible buildable width and such side yard requirements as may be provided for by the zoning ordinance."

GROUP IV. MISCELLANEOUS

30. OPEN SPACES

Altoona, Pa., Dayton, O., Des Moines, Ia., Kenosha and Kenosha County, Wis., Riverside, Sacramento and Santa Barbara County, Cal., and Richmond, Va., rule that due consideration should be given to the dedication of suitable sites for schools, parks, and playgrounds in accordance with the City Plan. Some cities further stipulate that such provision should be indicated on the preliminary plan so that it may be determined how and when such areas may be acquired. Dayton, O., adds that it is deemed desirable that at least 5 per cent of the net area of every plat, exclusive of streets, should be set aside as a play park. Where such plat contains less than 40 acres, the 5 per cent reserve should be combined wherever possible with the reserves of other plats. Kenosha County and Kenosha, Wis., add that where possible, they will require the dedication of 5 per cent

exclusive of streets and alleys except where 5 per cent of the area is too small for parks where no public dedication will be required.

Santa Barbara County, Cal., says that in all subdivisions due regard must be shown for the preservation of all natural features which will add value to the community. Especial emphasis is placed upon the necessity of saving large trees and beautiful groves, rock formations, water courses, scenic points, beaches, coves, historic spots, and similar assets. They will urge, and legally require where necessary, a proper respect for the appearance of highways. The coöperation of subdividers will be sought in placing restrictions upon signs and billboards, in preventing erection of ugly buildings, in the removal of poles and wires from the streets, and in the encouragement of systematic tree planting.

Canton, O., specifies that in residential suburbs of over 25 acres, open spaces equal to not less than $\frac{1}{25}$ of the area shall be reserved. These areas need not be dedicated to the public. The requirement may be removed or reduced if it would create unusual hardship or if there are plenty of open spaces or if the lots are exceptionally large.

Jamestown, N. Y., says that a minimum dedication for park purposes of 10 per cent of the area of a subdivision may be required.

A 5 per cent dedication was formerly required in Akron, O., but this practice has been abandoned because the city received many areas that were too small to be of value and were expensive to maintain. The Reading, Pa., regulations recommend that not less than 1 per cent of the total area of any proposed development be dedicated for parks and playgrounds.

Detroit, Mich., has a regulation that no property shall be subdivided which is not suitable for platting. By this means, they prevent the subdivision of property along streams and rivers. Such property must remain as an outlot and can be dedicated to the public for park purposes or may be reserved with the understanding that it will be acquired for such purposes at some time in the future.

Oklahoma City rules that on all new subdivisions not less than 5 per cent of the total property subdivided must be dedicated for public use. Such 5 per cent shall be computed after deducting the amount dedicated for public streets, boulevards, or highways. It is intended that this property should be used for park purposes under usual conditions but the same may be used for school, playground, or other public purposes if deemed advisable at any time. Warranty deeds, clear of taxes and encumbrances, describing the property and dedicating the same "for public purposes" will be required on such dedications. No other restrictions or reversionary clauses may be inserted in such deeds. Five per cent will not be required if the tract is less than 5 acres. The owner may select the land to be dedicated unless there are parkway, boulevard, or park plans. Then the property to be dedicated must fit into this general scheme. San Diego, Cal., requires that whenever any tract or subdivision is bounded on any side by any bay or by the Pacific Ocean, there shall be dedicated a street along the bay or water front at least 60 feet wide. Streets leading to the bay or ocean front shall run and be open to the mean high tide line.

31. REGULATIONS RELATING TO ZONING

Des Moines, Ia., Riverside, Sacramento, and Santa Barbara County, Cal., regulate a zone change from a less to a more restricted use district in the following manner: Wherever property is subdivided with the intention that it shall have a use more restricted than that designated in the zoning ordinance, such use shall be stated either in an application for amendment to the zoning ordinance or in a separate statement filed with the commission. Des Moines, Ia., specifies that such use shall be stated and the building lines and other rules affecting such more restrictive use shall be shown and noted on the plat.

Altoona, Pa., specifies that use and area restrictions must be in accordance with the zoning ordinance before a plat will be approved.

Oklahoma City suggests that in close-in districts, no restrictions upon the use of property be included in the plat but that the restrictions of the zoning ordinance be allowed to control.

Dayton, O., has the following regulation: "Where deemed desirable from a city or regional developing point of view, by the City Plan Board, the subdivider should restrict by covenant in the deed, part (or) all of his plat against industrial or business use, or against multiple-family houses either permanently or until the section be zoned, such restrictions to be filed and recorded with the plat."

As already pointed out, Canton, O., Des Moines, Ia., Kenosha, Wis., Richmond, Va., Riverside, Sacramento, and Santa Barbara County, Cal., require building lines on all residential property in accordance with the zoning ordinance.

Santa Barbara County, Cal., states that business lots, when platted, shall bear a reasonable relation in number to the probable future number of families constituting the purchasing power of the neighborhood. The Commission will require each subdivider to show proof of the necessity of a greater number of business lots than one such lot per 10 residence lots in the tract being subdivided. The Commission will reserve the right to allocate business lots in accordance with its Master Plan.

Sacramento, Cal., specifies that land zoned for industrial purposes shall be subdivided in accordance with industrial needs, as distinguished from being cut up into ordinary building lots. Riverside and Santa Barbara County, Cal., have similar regulations.

32. VARIATIONS

A majority of the cities include with certain regulations a provision for varying from the requirements when adherence to them is impracticable. When a variance is made, Santa Barbara County, Cal., requires the County Planning Commission, by resolution in its minutes, to cite the special case and the reasons therefor. Where practical difficulty or unnecessary hardship would be caused, Dayton, O., permits a variation providing it can be done in such a way as to grant relief and at the same time protect the general interest. Kenosha County, Wis., permits a variation under the above conditions if there is a concurrence of a majority of all the members of the Board. The Chicago Regional Model states that the Plan Commission may approve variations from requirements in specific cases which do not affect the general plan or the spirit of the ordinance. All such variations must be communicated to the legislative body in writing with the reasons therefor before the final approval of the plat by that body.

33. MISCELLANEOUS REQUIREMENTS

Saint Charles, Ill., requires every street to be dedicated as a public street and will approve no private street except by special action of the Plan Commission and the City Council. Practically all cities require a proper dedication of all property intended for public use and the granting of all required easements. Canton, O., requires the submission of a copy of the form of sales contract and of any deeds showing any special covenants and restrictions. Normally, all adjustments for taxes and special assessments must be made before plat approval. Legal descriptions of the subdivision are, of course, invariably required. Frequently, there is a section stating that if any part of the rules shall be adjudged illegal, the illegality of such portion shall not nullify any of the remaining provisions. Cincinnati, O., requires a certificate from the City Engineer declaring that the technical requirements have been checked and found to be correct and that the required grading and improvements have been carried out. Akron, O., requires all boundary surveys to be checked on the ground by the Highway Department, the cost being charged to the allotment owner.

H. NOTES ON RESERVATION OF OPEN SPACES IN PLATS

AKRON. Formerly open space dedications of 5% of subdivision areas required and although city thus secured about 100 acres, many of areas were too small to be useful and their upkeep was difficult especially when located outside city limits, so practice abandoned.
ATLANTA. Voluntary dedication of 10% of area of subdivision sought and occasionally secured. City will accept any area large enough for playground. These areas not maintained by municipality outside city limits.
BUFFALO. Some subdividers voluntarily reserve play space.
CULVER CITY, Cal. 5% of gross area of many subdivisions reserved for park or playground purposes.
DULUTH. Dedications of 5 to 10% of subdivision areas sought when they conform to recreation system plans.
EL PASO. In future will require dedications of 5 to 10% if this can be done legally.
FORT WORTH. Several small parks have been acquired as voluntary land subdivision dedications. One of these secured Harmon award.
GLYNN COUNTY. Adequate dedications of land for parks will be required of land subdividers.
HARRISBURG. Dedications of desirable park land required. Persuasion has been successful thus far.
INDIANAPOLIS. Park dedications required of subdividers only along streams.
JOHNSTOWN. City usually convinces developer of desirability of park dedications especially in case of streams and hillsides impracticable for housing development.
KENOSHA. Unless subdivision too small, 5% dedication required in accordance with city plan. When an area larger than one secured by dedication required, additional land purchased at acreage prices.
LOS ANGELES COUNTY. Open space dedications being required.
MARYLAND-NATIONAL CAPITAL REGION. Dedications sometimes requested. Reservations of land which will be purchased when funds become available often required and enforced by refusal to issue building permits.
MILWAUKEE. Park dedications required only along streams although often requested and secured elsewhere.
MILWAUKEE COUNTY. Many parkway dedications secured along streams.
OAKLAND. Open space dedications often required.
OKLAHOMA CITY. See statement of Mr. A. O. Campbell in *City Planning*, Oct., 1928.
Dedications of 5% required but city will not accept unsuitable dedications. If such an area considered too small for park purposes, city may require deed to a lot which city may sell and use money secured to purchase park land elsewhere.
PITTSBURGH. Although dedications of land suitable for playgrounds are requested, undeveloped areas within city are so small and high-priced that few are secured.
PONCA CITY. Adequate dedications for parks and schools required. Persuasion successful.
RALEIGH. Dedication of open areas suitable in size and character required. Maintained by city both within and without city limits.
SACRAMENTO. Park dedications required when conditions warrant it. City hesitates to accept small areas outside limits because county taxes them.
ST. PAUL. Act requiring dedication of definite percentage for park purposes proved unsuccessful and has been repealed.
SCHENECTADY. Desired open spaces determined by the comprehensive plan regardless of subdivision boundaries. Land is then acquired either by dedication or purchase. Any costs assessed over benefited districts.
TOPEKA. Present commission discourages dedication of open spaces in land subdivisions because city has to pay for paving streets adjoining park land thus secured.

Tulsa. Open spaces formerly required but city received so many small weed patches, dumps, and holes which were burden to develop and maintain that practice abandoned. Park department maintains open spaces both within and without city limits.
Westerly. Open space dedications required outside built-up area. Town board decides amount in each case.

The dedication of open spaces is requested but not required in the following cities:

Altoona
Canton
Cincinnati
Columbus
Durham
Greensboro
Fort Wayne
Houston
Knoxville
Lansing
Los Angeles
Norfolk
Richmond
Toledo
Washington
White Plains

I. COMMENTS ON BENEFITS OF PLAT CONTROL

AKRON. Type of subdivision development decidedly improved. City secured 172 acres for municipal golf course. Parts of thoroughfare system acquired at no cost. Improvements made in a subdivision plan when presented for approval increased the subdivider's profits $11,000.
ALTOONA. Street jogs and dead-ends eliminated, better adaptation of roads to topography, street grades reduced, greater width of lots and longer blocks.
ATLANTA. Street design improved, better alignment, larger lots, and more small parks.
BALTIMORE. Street dedications secured.
COUNCIL BLUFFS. Has deterred "get rich quick" platting schemes. Higher class subdivisions secured.
DAYTON. Better street alignment, larger lots, duplication of street names prevented, suitable width for major streets secured.
DETROIT. From 1925 to 1927, 613 miles of street right of way frontage was acquired, 85% of which was dedicated or released by quitclaim deeds at no cost to the city.
DULUTH. 2 acres play areas dedicated, extra street width secured, lots 25 feet wide prevented.
EVANSVILLE. Dedication of 5 miles of streets at no cost to city. This item alone exceeds entire cost of planning commission to city. Appearance of subdivisions improved.
GREENSBORO. Errors made in past costing city thousands of dollars now prevented.
HARRISBURG. Through-streets of uniform width secured. Plat control is most important part of local city planning.
INDIANAPOLIS. Wide streets secured at no cost.
KNOXVILLE. Several major street dedications secured. Commercial center being developed along improved lines suggested by planning commission.
LOS ANGELES. In 5 years of subdivision control city has secured without cost over 200 miles of 100-foot streets and equal mileage of 80-foot streets. Park reservations secured at nominal cost or gratis. Street alignment and grades improved.
LOS ANGELES COUNTY. 85 linear miles of major and secondary highways secured gratis.
MILWAUKEE COUNTY. 50 miles of highways dedicated gratis.
OKLAHOMA CITY. "Spite" strips and streets only 25 to 35 feet wide prevented. Main arteries of proper width secured. Has been most valuable single planning feature.
OMAHA. Type of development improved. Better restrictions promoted because planning commission has opportunity to talk with every subdivider.
PITTSBURGH. Better adaptation of streets to topography. Larger sized lots and resulting better buildings.
PONCA CITY. Through required improvements in one subdivision future property owners were saved $50,000 on paving alone.
PORTLAND, Ore. Additional street widths secured will save city much money later. Dedication of diagonal street 80 feet wide secured.
SACRAMENTO. Thoroughfare dedications secured. Unnecessary poles kept off streets.
SAN DIEGO. Temporary type of shacks that formerly went on 25-foot lots has been supplanted by substantial dwellings on 50-foot lots. Most worth while part of San Diego city planning.
SCHENECTADY. Streets dedicated according to city plan. Required 50-foot minimum lot width has improved type of development.
WASHINGTON. Longer blocks, preservation of natural areas.
WICHITA. Street jogs avoided, 2 to 3 miles of new streets secured in accordance with major street plan.

The following cities reported improved street design, such as better street alignment, grades and width:

CHATTANOOGA	JOHNSTOWN	RICHMOND	TOLEDO
CINCINNATI	KENOSHA	SAVANNAH	TOPEKA
CLEVELAND	NEW BEDFORD	SEATTLE	TULSA
HOUSTON	RALEIGH	SYRACUSE	

J. COMMENTS ON BENEFITS OF ZONING

AKRON. Economies effected in provision of utilities.
ATLANTA. Value of zoning indicated by fact that between 1926 and 1928 when zoning was inoperative damage estimated at $15,000,000 caused by improperly located buildings. Business center development improved under zoning.
BISMARCK. People will pay more for residential property in a zoned residential district.
CHATTANOOGA. Business sub-centers of high type created.
CINCINNATI. Has preserved and increased values and originated properly located business sub-centers.
DAYTON. Has kept recent rapid growth restricted and prevented scattering of local business.
DES MOINES. Business sub-centers developing.
DULUTH. Damage to property values prevented. Economies effected by basing street lighting plan on zoning and major street plan.
DURHAM. Type of development in business sub-centers improved.
EVANSVILLE. Directly after passage of zoning ordinance, realtor reported that a national insurance company authorized him to loan 10% more on residential property in restricted zones.
GRAND RAPIDS. Substantial reductions in fire losses from 1923 to 1927 partly attributable to yard requirements of zoning.
INDIANAPOLIS. Telephone company estimates that 50% could have been saved on 20-year population estimate if zoning had been in effect at time company made it.
JACKSONVILLE. Type of development in local business centers improved. Zoning a residential section for business uses not needed substantially lowered property values in one section: insurance companies who formerly loaned up to 50% of value of residences there will now loan only 25%.
KNOXVILLE. Utility planning facilitated. In city-wide street lighting system, type of light determined for each street by zoning provisions. Large sewer project based upon zoning.
LINCOLN. Values stabilized and better types of local business structures encouraged.
MARYLAND-NATIONAL CAPITAL REGION. Insurance company reported not interested in making residential property loans in Virginia because not zoned but glad to make in zoned Maryland region.
MEMPHIS. Has decreased density of population in residential areas and improved type of development of business centers. Made school locations more permanent. Child accidents reduced due to segregation of uses.
MILWAUKEE. Zoning unreasonable amount of property for local business has insured investors.
MILWAUKEE COUNTY. Keeps industry out of residential sections, thus conserving values. Concentrates local business centers, preventing undesirable shoestring development.
MINNEAPOLIS. Has made land available for industrial development and settled conflicts between industry and residences.
NORFOLK. Has protected residential property.
OKLAHOMA CITY. Has increased all property values throughout city.
OMAHA. Has centralized industries, created outlying business center values, and protected and stabilized residential values.
PITTSBURGH. Has prevented property profiteering and effected economies in telephone, sewerage, and water systems.
PONCA CITY. Has developed and increased values in local business centers. Has saved many residential districts and improved type of development due to security.
PORTLAND, Ore. Width (therefore cost) of street pavements in residential districts reduced. Loan companies determine amount of loan by zoning classification of property. Easier to secure loans on residential property in residential zone.
PROVIDENCE. Economies in municipal expenditures for utilities effected. Industries attracted since easy to determine exactly where factories and workers can be located.

SACRAMENTO, CAL.

ZONING RECLASSIFICATION

CODE OF POINTS INVOLVED
PROCEDURE FOR ANALYSIS

Ap. No.

KEY	POINTS	POINTS DETERMINED	
(A)	POLICY		
	When petition is filed with Board determine following points of policy:-		
	1. Whether decision will be based upon representation of majority of property owned with 500 feet radius (or, and)		
	2. Whether decision depends upon applicant's ___ foot Zoning Back.....		
	3. Whether decision will be based upon applicant's presentation of plans for proposed improvement.....		
	4.		
	BASIS OF POLICY		
(B)	GROUP I - APPLICANT'S RIGHTS		
	1. Sufficiency of petition as to form and general requirements, etc.....		
	2. Majority percentage of property representation in 500 foot signing in favor.....		
	3. No objections whatsoever filed.....		
	4. In old residential section of the City.....		
	5. Owners of property immediately adjacent in favor...		
	6. Effect upon general character of the neighborhood..		
	7. Effect upon adjoining property values.....		
	8. Improvement to applicant's property.....		
	9. Increase in taxable revenue to City.....		
	10. Other stores existing in neighborhood.....		
	11. Attitude of property owners directly across street.		
	12. General tendency of district.....		
	13.		
	14.		
	TOTAL		
	PERCENT		
(C)	GROUP II - MISCELLANEOUS FACTORS		
	1. Majority protest filed.....		
	2. Minor protest filed.....		
	3. Applicant's willingness to accept ___ foot Zoning Back.....		
	4. Applicant's presentation of plans of proposed imp't		
	5. Other com'cl property in 500' radius not so used...		
	6. Proximity to a public school.....		
	7. Effect upon vehicular traffic.....		
	8. Was property originally zoned satisfactorily.....		
	9. Urgency of reclassification.....		
	10. Speculative nature of reclassification.....		
	11. Trend of Population in neighborhood.....		
	12. Distance from downtown business district.....		
	13. Proximity to other commercial property.....		
	14. Proximity to carlines.....		
	15. Proximity to a hospital.....		
	16. Removal of street trees.....		
	17. Effect upon decentralization.....		
	18. Obstruction to future widenings, closings, openings		
	19. Tendency of street toward reclassification requested		
	20. Proximity to railroad lines.....		
	21. Restrictive provisions of deed.....		
	22. General beautification benefits.....		
	23.		
	24.		
	25.		
	TOTAL		
	PERCENT		

Courtesy of H. G. Denton, City Clerk

See page 174

RALEIGH. Has protected residences and improved development of business centers.
ROCHESTER. Has attracted industries to suitable locations.
SACRAMENTO. Residential values increased, development of local business centers made more compact, economies effected in lighting and telephone systems.
ST. LOUIS. Before zoning, property values on Lindell Boulevard stagnant. Realtors wanted it zoned commercial, hoping thus to double values; but it was logical territory for apartment houses and so zoned. Since May, 1926, more than $20,000,000 worth of apartments built on this street. Property values much more than doubled. Property purchased for $18,000 before zoning sold for $75,000 in 1928. Value of zoning to St. Louis shown by fact that during period city without zoning after unfavorable court decision, $10,000,000 worth of "pirate" buildings improperly located or of too great height erected. This caused gap in preservation of home life in St. Louis that will probably never be fully made up.
ST. PAUL. Has made people feel secure. Permits use of suitable street widths in various districts, thus reducing street costs. Ordinance constantly referred to by utility companies. Helped make adjustments required by coming of $10,000,000 Ford factory. Prevented spoliation of section about factory by speculation in sites for corner stores by prohibiting them except at suitable places.
SAN DIEGO. Has kept stores out of residential districts. Realtors report difficulty in selling residential property not in residential zones.
SCHENECTADY. Local business centers created and property values increased.
SPRINGFIELD. Value of houses built over 40 years ago so stabilized that the neighborhood constantly improving instead of degenerating as is usual. Economies in municipal expenditures for utilities effected.
TULSA. Property values increased especially in local business centers.
WESTERLY. Property values increased due to security against undesirable uses.
WEST LAFAYETTE. Lot areas larger. Houses set farther apart and at greater distance from street.
WHITE PLAINS. Zoning held directly responsible for increase of $30,000,000 in city assessments.
WICHITA. Gives citizens feeling of protection and city engineer assurance of stabilized plans in utility design. Created local business centers of such improved type of development that, since zoning, city able to require fireproof buildings in these centers.
WILMINGTON. Increased residential values.

The following cities reported stabilization of land values as a result of zoning:

ALBANY
COLORADO SPRINGS
DES MOINES
FARGO
JOHNSTOWN
KANSAS CITY, MO.
MADISON
MEMPHIS
MILWAUKEE
NEW HAVEN
OMAHA
PITTSBURGH
PORTLAND, ME.
PORTLAND, ORE.
PONCA CITY
SACRAMENTO
SAN DIEGO
SYRACUSE
WICHITA

K. COMMENTS ON GAINS RESULTING FROM STREET PLAN IMPROVEMENTS

ASHEVILLE. System of boulevard-through-streets established 1928 has reduced street traffic accidents 80%. Values increased at least 100% along widened streets and traffic facilitated.

CHATTANOOGA. Broadway extension has revolutionized traffic movement in downtown district and property values have increased from very little to about $500 per front foot. After widening of Cherry Street for one block, property values increased 4 times.

CHICAGO. Estimated that Michigan Avenue improvement has increased land values $150,000,000. Assessed valuations increased $80,000,000. Increased value of better buildings erected as result of improvement amounts to $25,000,000. Improvement estimated to have paid for itself 6 times and to be doing this once every 2 years. Property values along Wacker Drive increased 5 or 6 times former value. Previous to widening, values along La Salle Street averaged about $200 per front foot. Two months after proposed widening announced, values jumped to $1000 per front foot.

CLEVELAND. Carnegie Avenue property values doubled as a result of the widening.

DALLAS. Public safety increased.

DENVER. Property values along Colfax doubled within 6 months after widening of paved roadway.

DETROIT. Property on Michigan Avenue that sold for $600 per front foot prior to street widening valued at $1000 per front foot soon after. Street plan reduces paving costs because city engineer knows which streets to pave, and on which to delay paving until street widened.

FORT WAYNE. Clinton Street widening enhanced property values due to wider street and new store fronts.

GRAND RAPIDS. Extension and development of Shawmut Boulevard converted dumping ground into desirable residential section. Street was 26 feet wide, now 107 feet wide.

GREENSBORO. When Green Street widened from 40 to 80 feet, property values jumped from $300 to $1100 per front foot. On widened streets property values have usually increased at least 100% and in no case has new value been less than original value plus cost of widening.

HARTFORD. Property values increased and traffic congestion lessened.

HOUSTON. Have lessened traffic congestion and tended to decentralize business and spread property values.

INDIANAPOLIS. Realtors report they can sell property on wide streets required by street plan more readily than other property, and for price more than high enough to pay cost of extra width.

JOHNSTOWN. New bridges recommended in street plan great help in relieving traffic congestion.

MEMPHIS. On parts of Union Avenue as result of widening, street car track removal, and improved lighting, property values increased from $100 to $500 per front foot. Cost of improvement, $40 per front foot. Property about Linden Circle previously dumping area worth less than $30 per front foot, since improvement valued at least $300 per front foot.

NASHVILLE. As result of widening Church Street, property values increased from about $30 to nearly $500 per front foot.

NEW HAVEN. Business spread over larger areas, appearance of city improved, property values increased along widened streets and traffic congestion lessened though not always to extent anticipated because improvements have attracted additional traffic.

NIAGARA FRONTIER REGION. When completed, Middleport-Buffalo highway will reduce cost of hauling food from fruit belt to Buffalo.

OKLAHOMA CITY. Walker Street opening has permitted downtown business to expand to west and relieved downtown traffic congestion. Although only open few months, downtown building construction already stimulated.

OMAHA. Traffic congestion relieved. St. Mary's Avenue improvement doubled property values along street between 16th and 20th Streets. 20th Street straightening and widening increased rental value of property for 2 blocks east and 1 block west at least 100%.
PROVIDENCE. Street widenings have increased property values and benefited entire city.
ROCHESTER. Property values increased about 30% along South Avenue improvement.
ST. LOUIS. As result of Olive Street widening, both property values and volume of traffic accommodated have increased about 700%. One year after completion of Washington Street project, property values increased 4 times. All street widening projects have increased abutting property values.
ST. PAUL. Have lessened traffic congestion and tended to decentralize business. Robert-University Connection (cost $260,000) saves on basis of use an amount, capitalized at 6%, equal to $830,000.
SPRINGFIELD. North End Boulevard connecting 17 dead-end streets greatly enhanced property values. Abutting property values increased about 250% as result of Vernon Street widening. Columbus Avenue widening from 35 to 80 feet increased values along it about 100%.
WICHITA. Traffic congestion relieved. Property values already on up-grade through district newly opened by Moseley Avenue project.

L. STREET TRAFFIC STUDIES REPORTED

ALBANY. New York State Conference of Mayors and Metropolitan Life Insurance Company Policy Holders Service Bureau published in 1926 report on Albany traffic problem. No special results.
ALTOONA. Studies made by city plan consultant. Secretary of city planning commission and traffic director coöperate.
BALTIMORE. Made as part of 1926 Kelker-De Leuw studies.
BOSTON. Published traffic report and follow-ups by Miller McClintock. Further studies by Robert Whitten in connection with city and metropolitan street plans.
CANTON. Studies made in preparation of thoroughfare plan. Traffic committee of city council studying traffic control ordinance based on Model Code.
CHICAGO. Majority of recommendations of McClintock 1926 traffic report put into effect. Copies sent by Chicago Regional Planning Association to all but smallest cities in state.
CLEVELAND. City traffic commissioner made studies in 1925.
COLUMBUS. City planning commission has made traffic surveys during past 3 summers.
DAYTON. Traffic counts made prior to street plan and repeated periodically.
DENVER. Studies made prior to street plan. Good coöperation between safety commission and planning commission.
DES MOINES. Made by Bartholomew and Associates prior to street plan on which traffic control is largely based.
DETROIT. Police department constantly making studies with the advice of city planning commission.
EL PASO. By police department for traffic regulation and by city planning commission for study of grade crossing eliminations.
FORT WORTH. Traffic counts.
GRAND RAPIDS. By Traffic Safety Council subsequent to major street plan.
JACKSONVILLE. City-wide traffic counts made prior to street plan by hired workers at 55 points.
JOHNSTOWN. Piecemeal studies in connection with specific projects.
KANSAS CITY. Traffic committee of Safety Council with city planning commission engineer as member concerned with traffic regulation.
KNOXVILLE. Subsequent to major street plan, studies made by Miller McClintock of traffic conditions in central business district. Resulting revised traffic control moves traffic faster and provides greater safety for pedestrians.

Los Angeles. Studies by Miller McClintock for city and county have increased traffic passing through downtown district 50% and at same time reduced accidents 25%.
Louisville. A 2-volume traffic survey prepared in 1927 by L. Segoe. Recommendations for traffic regulation partially adopted.
Milwaukee. Counts made at various times by Board of Public Land Commissioners.
New Bedford. Counts made continuously for specific projects. Traffic regulations studied and recommended by planning board.
New Orleans. Report to common council by McClintock and Bartholomew.
Niagara Frontier. Highway traffic studies made by Erie County highway department.
Norfolk. Made by traffic commission in connection with transit study.
Oklahoma City. Traffic commission with interlocking membership with city planning commission is revising traffic code.
Philadelphia Region. Studies made by state highway departments of Pennsylvania and New Jersey.
Pittsburgh. Continuing studies by traffic bureau which coöperates with city planning commission.
Ponca City. Traffic and accident survey in downtown business district in 1927 sponsored by city manager.
Providence. Miller McClintock and public service engineer coöperated on study subsequent to major thoroughfare plan.
Richmond. City-wide traffic counts made every 2 years.
St. Paul. Traffic flow map prepared annually. City planning board has made studies for police department.
San Francisco. Report prepared by Miller McClintock has proved valuable.
Salt Lake City. Traffic and transit studies made by Ross Harris for Utah Traction Company.
Schenectady. Special studies for replanning of street intersections and timing of traffic control.
Seattle. Superintendent of streets makes annual traffic counts.
Spokane. Made by police department incidental to installation of traffic signals.
Springfield. Studies made and traffic regulations framed by engineer of city planning board.
Toledo. Police department has made studies.
Tulsa. Present traffic ordinance was direct outgrowth of study made by Tulsa Safety Council, sponsored by Junior Chamber of Commerce.
Washington. Traffic commission counts and activities for promotion of safety.
Wichita. City-wide traffic counts made every 2 years by city planning commission.
Wilmington. Safety Council has made studies.

The following additional cities report traffic studies made prior and incidental to a major street plan:

Akron
Bridgeport
Brunswick
Chattanooga
Duluth
Durham
Greensboro
Harrisburg
Hartford
Houston
Indianapolis
Kenosha
Lafayette
Madison
Memphis
Oakland
Portland, Ore.
Roanoke
Sacramento
Topeka
Trenton
White Plains

M. PARKING FACILITIES IN OFFICE BUILDINGS

AKRON. Department store building has parking provision for 300 cars. Time limit but no purchases required.
BALTIMORE. Facilities in basement of new municipal building.
CHICAGO. Pure Oil Building has garage core about which offices are built. Accommodates 528 cars and can handle more than 1 car per minute.
CLEVELAND. Office building has parking space. Auditorium Garage rents some space for offices.
DENVER. Physicians and Surgeons Building devotes 2 floors to parking facilities used primarily by tenants.
DETROIT. First National Bank has built new building (directly connected with bank) 11 floors of which are devoted to parking for use of employees and tenants. Separately-built ramp garage connects by tunnel with the Book Building. Fisher Building contains extensive parking facilities.
GRAND RAPIDS. Michigan Trust Building directly connected with adjoining parking garage.
INDIANAPOLIS. Two garages rent some of their floors for offices.
KANSAS CITY. One building 3 miles from center of city has basement parking.
KNOXVILLE. A number of contemplated buildings will provide parking space within the structure.
LOS ANGELES. Practically all Class A office buildings erected recently provide internal storage facilities for automobiles.
MEMPHIS. Medical-Arts Building operates garage. Department stores give free parking in garages if purchase slip shown.
MILWAUKEE. Brumder Building has basement parking provisions.
MINNEAPOLIS. Baker Block accommodates 500 to 600 cars within the building.
NEW ORLEANS. One office building has capacity of 400 cars.
OMAHA. Electric Building has basement garage.
PITTSBURGH. Grant Building has 3 or 4 floors below street for parking of tenants' cars.
PORTLAND, ORE. All major office buildings erected within last 2 years have basement parking provisions.
SACRAMENTO. State Library and State Office Building have basement parking facilities. Three apartments have first floor devoted to parking.
SALT LAKE CITY. Parking in basement of State Capitol Building.
SPOKANE. Medical-Dental Building has basement garage.
SYRACUSE. Some buildings have provisions in basements; others, in light-courts.
TOLEDO. Some department stores have parking provisions in building.

N. ELIMINATION OF RAILROAD GRADE CROSSINGS

AKRON. Bond issue $3,000,000 to pay city's share (35%) cost of eliminating 10 crossings authorized Nov., 1928.
ALTOONA. More crossings needed over or under main railroad line.
ASHEVILLE. No major thoroughfares or streets of importance cross railroad at grade.
ATLANTA. More grade separations needed. In last 8 years 15 people killed on grade crossings on one railroad.
BALTIMORE. Major thoroughfares laid out to make grade separations practicable. City has bridge and highway loan fund of several million that can be used for eliminations. See Ordinance No. 966.
BISMARCK. Becoming serious problem.
BOULDER. Railroad proposing to move station 3 or 4 miles from town as a means of eliminating grade crossings.
BRIDGEPORT. All crossings on main lines separated.
BUFFALO. There is a "Grade Crossing and Terminal Commission."
CAMDEN. Negotiations being opened for elimination of 15 crossings on Pennsylvania Railroad electric line.
CANTON. All present crossings at grade. State law requires city to pay ½ cost of separation. Proposed railroad elevations which cannot be done piecemeal not being accomplished because of great cost.
CHATTANOOGA. 3 viaducts, 1 underpass. Great many more needed.
CHEYENNE. Railroad cuts city into 2 parts crossed by only one viaduct.
CINCINNATI. Extensive grade separations being accomplished.
CLEVELAND. About ⅔ of crossings within city separated.
COLUMBUS. Majority eliminated or in process in accordance with program started 1905.
COUNCIL BLUFFS. Every crossing in city at grade. Railroads will soon have either to combine on an elevation project through city to speed train service or else go around city.
DALLAS. Grade separations being carried out.
DAYTON. $8,000,000 bond issue passed in 1926 to pay city's share cost of railroad relocation and grade separation throughout city. Separation primarily by elevated fill.
DENVER. 6 underpasses and 5 viaducts. No more needed where traffic greatest but many needed in outlying sections.
DES MOINES. Real problem in heart of city.
DETROIT. Financed out of general funds. Grade separation division in department public works.
DULUTH. Planning commission has made studies of previous "paper" eliminations. In return for vacation of potential but unnecessary separations, city receives concessions from railroads.
DURHAM. Made in accordance with city plan. 3 or 4 more needed.
EL PASO. One made as recommended in city plan.
FALL RIVER. Practically all important crossings separated.
FARGO. 2 underpasses. More needed.
FORT WAYNE. Pennsylvania and Wabash railroads elevated. Elevation of Nickel Plate railroad being planned.
GRAND RAPIDS. One subway and one viaduct built. Franklin Viaduct crosses 29 railroad tracks. Railroads paid 65% cost. Benefit district made so large that one property paid only 3 cents.
GREENSBORO. Special study by Fellheimer and Wagner: major streets preserved but 7 minor streets crossing tracks closed. 13 eliminations at total cost of $3,000,000 completed or under contract. Both overpasses and underpasses used. Railroad and city each pay half. City financed both its share and railroad's share by 30-year serial bonds, railroad repaying city in 28 annual installments at same interest rate bonds carry. Eliminations valuable and universally approved.

HARRISBURG. All crossings on main line tracks eliminated or under way. Market Street subway widening provides 6 vehicular and street car and 2 pedestrian lanes. Cost more than $2,000,000. Construction well under way. South Second and Paxton Street intersection separation involves bridge and elimination of 3 grade crossings. Paid for as follows: City, $249,811; County, $206,097; Pennsylvania Railroad, $251,000; Reading Railroad, $7000; Utilities, about $100,000.
HARTFORD. Acute problem. 3 eliminated within last 30 years.
HOUSTON. Large number eliminations necessary and drainage of underpasses difficult.
INDIANAPOLIS. Steady progress on elevation of railroads started 1910. Tracks elevated through business section. Elevation of belt-line railroad proposed.
JACKSONVILLE. 4 viaducts and 1 subway.
JOHNSTOWN. All crossings on main railroad line separated.
LAFAYETTE. Plan for rerouting trains and eliminating grade crossings prepared.
LANSING. 2 viaduct bridges over railroad and river built in last 5 years, another under way.
LARAMIE. When new viaduct completed, 3 grade crossings will be abandoned.
LINCOLN. Railroad through heart of city is problem.
LOS ANGELES. Planning commission prepared plan for grade crossing elimination in San Fernando Valley portion of city about 1924. Crossings permitted only at certain points.
LOS ANGELES COUNTY. County Grade Crossing Committee, composed of unofficial representatives of the Railroad Commission and official representatives of city, county, planning commissions, 3 steam and 2 electric railroads, Automobile Club of Southern California, and the Traffic Commission, works to prevent additional unnecessary grade crossings and to remedy existing ones at rate of 2 crossings per railroad per year (8 crossings).
LOUISVILLE. Bond issue $5,000,000 passed 1924 to pay city's share large elimination program. Railroads pay 50%, street railways 25% where affected, city remainder. First project completed.
MADISON. 3 eliminations under way at present.
MARYLAND-NATIONAL CAPITAL REGION. Working on program to make 4 eliminations per year, dividing cost equally between railroad and county. 3 or 4 thus far eliminated.
MEMPHIS. About 20 crossings in city separated.
MILWAUKEE. Good progress on old elimination program but many more separations now needed.
MINNEAPOLIS. Extensive program largely carried out except for one railroad.
NEW BEDFORD. All but 2 crossings on main lines separated.
OKLAHOMA CITY. City has contract with railroads under which they agree to provide viaducts at own expense at major highway crossings. Will cost them 1½ million now and another million in about 10 years. Track elevation of Santa Fe will eliminate about 10 grade crossings: railroad's share about $3,000,000.
OMAHA. Very few dangerous grade crossings left in city and effort being made to eliminate.
PATERSON. Extensive separation program being accomplished, primarily by overhead railroad construction. Planning commission responsible for securing roadway underpasses of suitable width.
PHILADELPHIA. Many being eliminated.
PITTSBURGH. All crossings of importance separated.
PONCA CITY. One accomplished recently. 2 more greatly needed.
PORTLAND, ORE. With exception of one railroad, all important crossings separated.
RALEIGH. 3 crossings eliminated and about 5 more that should be.
RICHMOND. Some tracks entirely overhead; others, depressed. Many eliminations still needed.
ROANOKE. 2 viaducts recently constructed; 4 overhead bridges and 2 underpasses existing and more needed.
ROCHESTER. In 1882 New York Central Railroad eliminated 16 crossings by track elevation.

SACRAMENTO. Proposed elevation of Western Pacific Railroad tracks would eliminate 26 crossings. 3 out of 5 crossings on Southern Pacific Railroad eliminated.
ST. LOUIS. Great many eliminated. After long and difficult court and legislative fight, planning commission won over Wabash Railroad and secured a separation by depression of railroad and elevation of roadway. Important victory because it determined that Wabash will eventually have to depress rather than elevate tracks through Forest Park.
ST. PAUL. Much to *be* done and nothing *being* done.
SALT LAKE CITY. 2 railroad viaducts. 2 other eliminations especially needed.
SAVANNAH. 2 subways with drainage problems and 1 viaduct. Railroad on embankment undesirably dead-ends number of streets.
SCHENECTADY. All grade crossings (except 2 acquired during annexation) have been separated.
SPOKANE. All grade crossings eliminated on 2 railroads in business district.
SYRACUSE. Grade Crossing Commission. Serious railroad problem not yet solved has held up other planning progress.
TACOMA. One very bad main street crossing.
TOLEDO. Several accomplished, city paying 35% and railroads, 65%.
TOPEKA. Grade separations on track straightening project of Santa Fe Railroad.
TRENTON. Slowly being eliminated. Water levels cause difficulty.
TULSA. 5 viaducts proposed as part of new station development. 4 overhead and 7 subway separations exist.
WASHINGTON. Eliminations within city nearly completed but grade crossings serious problem outside city.
WESTERLY, WHITE PLAINS, and WILMINGTON reported all important railroad crossings separated.

O. EXPERIENCE WITH BLOCK INTERIOR PLAYGROUNDS

AKRON. Has 2 of them in new subdivisions. Salesmen claim property about them hard to sell.
DALLAS. See "Built-In Playgrounds" by O. H. Koch in *City Planning*, Jan., 1928.
DES MOINES. Only one and that is "a gesture of inadequate platting."
DETROIT. About 10 of them, and considered success. Land, sometimes up to $120,000 per acre, condemned for some in built-up sections.
DULUTH. Two in Morgan Park are success. Company maintains and has part-time play supervisor.
EVANSVILLE. A few have been planned but not developed.
HARTFORD. Were tried 10 years ago but abandoned because of too much noise.
KANSAS CITY. Are some in the Country Club District. See "Interior Block Playgrounds in High Class Residential Developments" by S. H. Hare in *City Planning*, Oct., 1928.
KENOSHA. Only one in a subdivision not yet built up.
LARAMIE. Are none but they hope to secure some soon in a built-up portion of the city.
MADISON. Some platted in Lake Forest subdivision but those blocks not yet developed and question of ownership and maintenance not yet settled.
MILWAUKEE. None. Blocks in built-up section seldom large enough.
SACRAMENTO. The 4 existing in the city are considered success by about 50% of people concerned.
WASHINGTON. There are 2, usually considered success, but not approved by planning commission.
WICHITA. One or two have been platted in subdivisions not yet developed.

P. NOTES ON RECREATIONAL WATERFRONTS

ALBUQUERQUE. 20-acre park along Rio Grande River.
ASHEVILLE. 100-acre undeveloped park along French Broad River.
BALTIMORE. Water-supply reservations and 2 small river parks.
BISMARCK. Mile municipally-owned waterfront. No recreational use of water due to current and quicksand.
BOSTON. Seafront at Revere Beach, Nantasket, City Point, and along ocean parkway drives. Charles River Basin and stream bank parkways.
BOULDER. Practically all land along Boulder Creek within city limits acquired or being acquired for park purposes.
BRUNSWICK. City and county own marsh land to be reclaimed for parks. County has reserved splendid sea beaches.
BUFFALO. Area adjoining ship channel being reclaimed for park.
CAMDEN. Pine Point, 16-acre waterfront park.
CHARLESTON. Boulevard 1 mile along Ashley River with 5 miles more proposed. Gift of $150,000 to start development.
CHICAGO. Splendid lakefront park development. Plan for ultimate extension entire length of city: 10 to 12 beaches when fully developed will accommodate 250,000 people at one time.
CLEVELAND. $750,000 appropriated to build bulkheads and fill behind them for parks, leaving lagoon between park and old shore.
COLORADO SPRINGS. Monument Valley Park starts at center of city and extends 2 miles along creek. No automobiles permitted in park.
COLUMBUS. Waterfront parkway, 200 to 600 feet wide for a total of 15 miles along river. Improvements contemplated.
COUNCIL BLUFFS. City owns 70% river frontage within limits in strip not less than 400 feet wide secured largely by gift. Developed by levee topped by park drive.
DAYTON. About 2 miles along one side of river (not continuous), of which $\frac{1}{3}$ given, $\frac{2}{3}$ purchased.
DES MOINES. Monumental riverfront development in connection with civic center. Plans for extension.
DETROIT. Belle Isle. Recent property negotiations for river drive between Waterworks Park and Belle Isle Bridge.
DULUTH. 13 miles of waterfront municipally owned.
FARGO. Land along one side of river within city limits municipally owned and developed with drive.
FORT WAYNE. City owns 10 out of 22 miles of river frontage within city limits. Rivers badly polluted.
GRAND RAPIDS. Series of dams built to keep water high. From business center south, city owns all but $\frac{1}{2}$ mile of frontage. For mile north of center, frontage privately owned and considered too expensive for city purchase.
GREENSBORO. City owns parkway 1000 to 4000 feet wide along North Buffalo Creek.
HARRISBURG. City owns entire waterfront along one shore, from very little to 300 feet in width. Development attractive.
HOUSTON. Great parkway created along Buffalo bayou, part of bayou park development scheme.
INDIANAPOLIS. Majority of stream frontage acquired for parkway.
JACKSONVILLE. Spending much money to acquire stream frontage through city.
KANSAS CITY. Blue River parkway proposed. Missouri River not desirable for park development.
KENOSHA. City has large holdings along Lake Michigan.
LANSING. 3-mile drive along Grand River west of city acquired by gift. Several waterfront parks.
LARAMIE. City planning commission working on acquisition of land along Laramie River.

LINCOLN. Land along streams especially valuable for parks because usually wooded. No extensive acquisitions to date.
MADISON. 40% of lake frontage within limits owned by city. Park and Pleasure Drive Association has easement on about 3 miles water frontage outside city.
MARYLAND-NATIONAL CAPITAL REGION. Nearly 50% of land required for Sligo Creek Parkway acquired through subdivision dedications.
MEMPHIS. Bluff park.
MILWAUKEE. City has secured riparian rights along Lake Michigan for entire length of city.
NASHVILLE. Shelby Park fronts for about mile on river.
NEWPORT. Very fine cliff walk along ocean.
NEW BEDFORD. Mile along Clark Point developed as bathing beach and shore boulevard. 19 acres being developed for park on north side of cove by filling behind bulkhead.
NEW ORLEANS. Levee Board "making" 1826 acres land along Lake Pontchartrain by dredging and filling behind bulkhead. Area about ½ mile wide and 5 miles long. Park with minimum width of 350 feet will extend entire length waterfront. At least 30% of land will be devoted to park purposes and remainder sold for hotel and residential sites to pay for project.
NEW YORK. Coney Island, Far Rockaway Beach, Palisades, etc.
OKLAHOMA CITY. City has acquired much land along river but no development has taken place due to difficulties with river "defined but not confined."
OMAHA. Scenic drive being developed for 4 or 5 miles along river bluffs in accordance with Bartholomew report of 1919.
PORTLAND, Ore. Sea wall being constructed offers recreational possibilities.
ROCHESTER. Splendid park development on Genessee River especially along gorge.
ST. LOUIS. $50,000,000 riverfront development proposed by city planning commission, involving replatting 40 city blocks, waterfront double-deck street, and great central parking plaza.
ST. PAUL. Twin cities own large portion of river frontage especially along gorge section. St. Paul owns top of bluff through portion of business section.
SAN FRANCISCO. Ocean Beach Esplanade.
SANTA BARBARA. Serious problem to preserve beaches against exploitation for oil wells.
SEATTLE. 30 miles scenic boulevard and 10 bathing beaches, largely purchased.
SPRINGFIELD. Extensive riverfront development proposed but not yet secured.
SYRACUSE. City and county propose to coöperate to build boulevard around Onondaga Lake, stop pollution and provide recreational facilities. Airport development feature of plans.
TACOMA. Point Defiance Park on tip of peninsula naturalistic timbered area containing 5-mile scenic drive along top of bluffs.
TOLEDO. Highways on both sides Maumee River from Toledo to Defiance.
TULSA. Riverside Drive extends one mile along Arkansas River with average width 150 feet. Addition of 1½ miles soon to be made.
WICHITA. All land along Little Arkansas River and ⅔ of land along Big Arkansas River within city municipally owned but only partially developed.

Q. EFFECTS OF PUBLIC OPEN SPACES ON LAND VALUES

PARKS

Cities Reporting That Parks Increase Property Values

No Comments

Akron	Lincoln	Salt Lake City
Altoona	Memphis	San Diego
Baltimore	New Haven	Savannah
Cleveland	Norfolk	Schenectady
Dallas	Omaha	Seattle
Evansville	Pittsburgh	Syracuse
Greensboro	Ponca City	Trenton
Harrisburg	Portland, Ore.	Tulsa
Houston	Richmond	Wichita
Indianapolis	Roanoke	Wilmington
Johnstown	Rochester	

Comments

Denver. Good residential districts have developed about each park.
Des Moines. Fine residences about all city parks.
Duluth. Property value maps show that lot valuations about parks in general twice as great as away from parks.
El Paso. Memorial Park has increased values not only of abutting property but also throughout entire region.
Grand Rapids. Wilcox Park has increased property values about 100%.
Minneapolis. Increased property values produced by park system amount to several times total park investment.
Nashville. Land about 2000-acre Belle Mead Park has quadrupled in value in 12 months since park acquired.
Raleigh. Parks increase values at least 33⅓%.
Sacramento. Realtors claim that parks increase property values and raise standard of residential development.
St. Paul. Values stabilized.
White Plains. Assessed value city property doubled since Westchester County Park Commission started work. At least portion of this increase attributable to county parks.

PARKWAYS

Cities Reporting That Parkways Increase Property Values.

No Comments

Baltimore	Memphis	Schenectady
Cleveland	Oklahoma City	Seattle
Duluth	Richmond	Tulsa
Harrisburg	Savannah	

Comments

Kansas City. Apartments tending to locate along parkways which traffic makes less desirable for single-family homes.
Lincoln. Some of city's finest residences along boulevards which have 40-foot central park strip.
St. Paul. High-class homes attracted along parkways where traffic not heavy and discouraged along those where traffic heavy.
Wilmington. Values increased to greater extent by parkways than by parks.

PLAYGROUNDS

AKRON. Do not add much to property values.
ALTOONA. Noise objectionable but playgrounds inadequate in size and design.
ASHEVILLE. Probably increase values.
BALTIMORE. Effect uncertain.
CANTON. Not considered asset to abutting property.
DES MOINES. Casual expressions have been that playgrounds detrimental.
DULUTH. Insufficient experience to make statement but public opinion is that property values injured.
GRAND RAPIDS. Large ones enhance values while small ones lower values.
HARRISBURG. Have not injured property values.
HARTFORD. Appear to benefit adjacent property in long run. Abutting property may be less desirable for people without children but becomes more desirable for those with children.
JOHNSTOWN. Have at least not decreased values.
KANSAS CITY. Are many objections. Values not enhanced.
MEMPHIS. Have had no appreciable effect on property values.
NEW HAVEN. People occasionally complain of noise. May tend to lower residential land values.
NORFOLK. Playgrounds do not enhance values, although a planted strip 25 to 75 feet wide about their borders minimizes objections.
OMAHA. Community benefits from playgrounds overbalance any losses to abutting property.
PITTSBURGH. Tend to decrease abutting property values but increase value of property some distance away.
PORTLAND, Ore. Values increased.
RICHMOND. Effect questionable.
ROCHESTER. Objected to by abutting property owners.
ST. PAUL. Depreciate property values, probably because playgrounds have no screen planting.
SALT LAKE CITY. Playgrounds separate from parks have depreciated values.
SAVANNAH. Do not enhance values.
SEATTLE. General sentiment is that they depreciate abutting property values.
SYRACUSE. Detrimental except in regions where many children.
TULSA. Believed to increase values.

R. COMMENTS ON CIVIC CENTERS

ALTOONA. Due to rough topography, difficult to find suitable site for civic center needed and desired.

ASHEVILLE. City hall and county building were to form twin buildings in the developing civic center but as constructed their architecture incongruous.

BALTIMORE. Memorial Plaza dedicated November 11, 1927. When streets were widened in connection with its development, city took entire area of lots affected. Buildings have been torn down and lots will probably be sold later with suitable restrictions.

BISMARCK. Liberty Memorial Building is first completed building of group plan which will eventually include new state capitol.

BRIDGEPORT. Lively interest in civic center projects because new city hall being proposed.

BUFFALO. Niagara Square selected as site for new civic center and plans for city hall, first building to be erected in it, being prepared.

CAMDEN. 17 acres more than the 35 acres needed for civic center were purchased and later 3 acres of this surplus were sold for 4 times amount of land's original purchase price and with important stipulation that architecture of building erected on it should meet approval of Camden's city plan consultant. Property values have risen in surrounding area. Convention Hall seating 8000 people built. With city hall being built elsewhere, it is anticipated that this area will develop as educational rather than civic center.

CHARLESTON. Has something of civic center with public buildings grouped at 4 corners of street intersection.

CLEVELAND. All land necessary for group plan, totaling nearly 20 acres, has been acquired and number of buildings erected. Mall, city hall, and auditorium being paid for by city out of bond issues. Development had decidedly encouraged good architecture in surrounding district and increased property values.

COLORADO SPRINGS. Possibilities for civic center scheme but none ever developed.

COUNCIL BLUFFS. Civic center urged as means of fostering community spirit and interest.

DENVER. Civic center notable. Combined court house and city hall authorized as addition to it. Federal center proposed and will probably eventually be realized.

DES MOINES. Over $4,000,000 already spent on Des Moines riverfront civic center. Most recent plans aim to connect this group with state capitol group.

DETROIT. Civic center proposed. Center of arts and letters developed.

DULUTH. Civic center, being developed along lines of Burnham plan, blocks east and west traffic relief street. Effort being made to secure agreement among property owners within block of civic center in all directions that no buildings will be erected until architecture approved by art committee composed of these property owners and governmental agencies involved.

EL PASO. Public buildings centralized but not grouped architecturally.

HARRISBURG. Brunner state capitol group plan being followed. Capitol and one office building existing. Another office building under construction and third contemplated. State Street parkway ties this center to riverfront development.

HOUSTON. Approximately half necessary ground for civic center purchased. Being financed by bond issues. Already surrounding property values enormously enhanced.

INDIANAPOLIS. War Memorial Plaza is about ½ mile long and block wide. City and county each bought one block of land and state owns rest. State constructing all its buildings and plaza on pay-as-you-go plan.

KANSAS CITY. Liberty Memorial may some day develop into civic center scheme.

KENOSHA. Civic center developing rapidly. According to city assessor's figures, property values within block of civic center have increased from 50% to 120%. Has had beneficial influence on appearance of other buildings.

LAFAYETTE. Plans for joint civic center for Lafayette and West Lafayette on west bank of river on land already owned by West Lafayette appear likely to be accomplished.

LINCOLN. Committee appointed to plan setting for new state capitol. Plan to locate governor's mansion, university building and veterans' hospital on axes being considered. Plan finally evolved must be approved by state, city, and people of city.

LOS ANGELES. Plan for civic center agreed upon and development proceeding. New city hall is dominant element.
MADISON. Council has adopted ordinance creating civic center. State capitol is at one end of proposed group.
MILWAUKEE. City has acquired about ½ of land needed for civic center. Development wiped out slum district. Realtors fear civic center will check business center expansion. Beneficial effect on appearance of other features of city.
NEW BEDFORD. Public buildings centralized but not architecturally grouped.
NORFOLK. City developing a cultural center.
OKLAHOMA CITY. Civic center plan prepared by Mr. George E. Kessler being revised by Hare and Hare.
PORTLAND. Plans for both educational and civic centers being considered.
ROCHESTER. Proposal made to locate civic center over portion of Genesee River if it will not interfere with flood control. Studies being made.
ST. LOUIS. There are 52.87 acres in total plaza development of which about 85% acquired by purchase. Total cost of land acquisition expected to be $6,677,088 of which $1,689,615 will be paid by benefit assessments. The 1923 bond issue of $87,000,000 contained $15,000,000 for plaza development. Plaza Committee composed of representatives of American Legion, Trade and Labor Organizations and Women's Clubs sold the plaza idea against combined influence of financial and commercial organizations. Plaza Commission composed of 6 architectural firms, 4 of whom are members of American Institute of Architects, and 2 engineering firms plus ex-officio members is preparing plans. Development is increasing property values in surrounding area.
ST. PAUL. Plans for beautifying Capitol approaches prepared by Cass Gilbert were approved by State War Memorial Commission in 1925, by architectural and engineering societies and by Minnesota Federation of Women's Clubs in 1928.
SAN DIEGO. Civic center plan adopted by vote of people. Proposed site owned by city on waterfront but because tidal land, project must be approved by legislature.
SAN FRANCISCO. 27 acres included in notable civic center development. There is feeling that property values have been lessened due to gap in activities which civic center creates.
SPRINGFIELD. Has notable early civic center development which fails of full effectiveness because it terminates no vista.
TOLEDO. Civic center gradually developing. Has had little effect on property values because city owns most of surrounding territory and is maintaining old and shabby buildings; but there has been noticeable improvement in architecture of new buildings in region.
WICHITA. Site for new post office acquired away from civic center will make civic center more difficult to acquire.
WILMINGTON. Rodney Square developed from competition plans.

Federal Buildings in Civic Centers

CHARLESTON. Post office in informal grouping of public buildings on 4 corners street intersection.
CLEVELAND. Post office in civic center.
DENVER. Federal center separate and distinct from civic center proposed.
DES MOINES. Post office located in accordance with civic center plan in 1909. In 1918, government secured site for federal building in civic center.
DULUTH. Money appropriated for joint federal building and post office on site approved in civic center. Construction will start in 1929.
INDIANAPOLIS. Federal building in War Memorial Plaza.
KENOSHA. New post office soon to be erected as part of civic center.
LOS ANGELES. Federal building in civic center.
ST. LOUIS. Location of new post office secured in Plaza after strenuous efforts. See Chapter XVI, p. 267.
TOLEDO. Federal building site secured as part of civic center. Construction expected in 1929.

S. REMOVAL OF OVERHEAD WIRES

ASHEVILLE. Proper location of utilities in city streets has been neglected. Telephone and public lighting companies combining in use of poles to reduce number. As far as possible, poles put in alleys or on rear lot easements.
BALTIMORE. City builds conduits and compels wires to be put into them, charging a rental to carry the cost. Telephone company builds its own conduits.
BRUNSWICK. Are being removed in sections of main business district in accordance with city plan.
BUFFALO. In downtown district, overhead wires being removed from 2 miles of street per year.
CANTON. City requires it within fire limits.
CINCINNATI. Wires being put underground in newer parts of city.
CLEVELAND. Accomplished in central section of city and along trunk lines for 5 or 6 miles out. Steadily increasing.
DAYTON. Put underground to some extent by private developers who pay additional cost.
DETROIT. City requiring all to be put underground on major streets by about 1930.
HARRISBURG. Largely underground in Bellevue Park section.
HOUSTON. Being put underground in all high-class subdivisions.
KANSAS CITY. Accomplished in downtown district and along main thoroughfares. Overhead wires not permitted to cross boulevards or parkways.
KENOSHA. In new subdivisions wires being placed in rear lot easements.
LOUISVILLE. In central section and well into suburbs wires being put underground voluntarily by utility companies.
MADISON. Utility companies spent half million dollars this year in removal.
MEMPHIS. In central conduit district, only trolley wires permitted overhead.
NEW BEDFORD. Being removed from 1 mile of streets per year.
OKLAHOMA CITY. Five- to six-year removal program in downtown district.
PITTSBURGH. Being done, but is expensive, due to rock and hard shale.
PONCA CITY. All except underground telephone wires are in alleys.
ST. LOUIS. Removal from 4 miles of major thoroughfares per year required under 5-year agreement between city and utility company. May be put in alleys.
SEATTLE. Wires underground in a few high-class land subdivisions.
SPRINGFIELD. Act of state legislature requires all wires within 2 miles of Court Square underground.
SYRACUSE. 10% in central business district each year.
TOLEDO. On all new or improved major streets.
TULSA. Only on new projects within central fire district.
WASHINGTON. Removed practically everywhere, including trolley wires.
WILMINGTON. Completely removed along boulevards.

The following cities reported wires largely or completely removed from the central business district:

AKRON	DAYTON	JOHNSTOWN	PORTLAND, ORE.
ALBANY	DENVER	KENOSHA	PROVIDENCE
ATLANTA	DES MOINES	KNOXVILLE	RICHMOND
BALTIMORE	DETROIT	LANSING	SACRAMENTO
BOULDER	DULUTH	MADISON	ST. PAUL
CHARLESTON	DURHAM	MILWAUKEE	SAVANNAH
CHATTANOOGA	FORT WAYNE	NEW HAVEN	SPOKANE
COLUMBUS	GRAND RAPIDS	NORFOLK	TOLEDO
COUNCIL BLUFFS	HOUSTON	PITTSBURGH	WICHITA
DALLAS			

Telephone companies appear to be leaders in the removal of overhead wires.

APPENDIX II

DESCRIPTIVE DIRECTORY OF CITIES AND REGIONS VISITED

By Howard K. Menhinick

WITH PLACE INDEX

Giving Page References to Text of Book

See also Subject Notes sub-arranged by Cities in Appendix I

AKRON, O. Akron is a city of rugged topography, divided into two parts by a river valley connected by a viaduct at one point. Rubber manufacture is the city's dominating industry. A farsighted plan made in 1825 provided, among other things, for a number of 99-foot streets, a square for public buildings, and a market place. In 1919, Mr. John Nolen prepared a city plan report for the Chamber of Commerce, which awakened the people to a realization of the defects of unguided growth. The City Planning Commission is actively at work preparing a major street plan, guiding the city's comprehensive zoning, and controlling land subdivision within the city limits and for 3 miles outside, while the Metropolitan Park Board is planning, acquiring, and developing parks within the region. In November, 1928 the city authorized a bond issue of $15,330,000 to pay for its share of the widening of 4 major thoroughfares, the elimination of 10 railroad grade crossings, and other projects.

Refs. — 11–12, 14, 36–37, 41, 88, 93, 103, 108, 115, 117, 128, 134, 136, 139, 148, 150, 155, 160, 168, 172–73, 181, 194, 201–02, 213–15, 232–33, 244, 284, 289.

ALBANY, N. Y. Messrs. Brunner and Lay prepared plans for the improvement of the riverfront for a committee of the Albany Chamber of Commerce in 1911. Since then, Mr. E. P. Goodrich has prepared plans for port development. To-day, the Albany Port Commission is working to develop Albany as an inland port; but the city as a whole is making no adequate preparation for the problems which will confront it when the port development has been completed, although there is nominally a city planning commission and a zoning ordinance was adopted in 1924. No marked improvements have resulted from the traffic study made in 1926 by the New York State Conference of Mayors and the Metropolitan Life Insurance Company. The Albany Capital District regional organization has never functioned.

Refs. — 52, 241–42, 268.

ALBUQUERQUE, N. M. Albuquerque, a health resort and tourist center, is preserving and developing its Spanish character. A zoning ordinance, framed but not yet adopted, contains a provision prohibiting sanitariums from Class A residential districts except by permission of the Board of Adjustment and then only if 50-foot front and side yards are provided.

Ref. — 271.

ALTOONA, PA. At the foot of the Allegheny Mountains, the city lies partly in a flat valley and partly in a very hilly area. The Pennsylvania Railroad shops provide the principal industry, and the railroad line divides the city longitudinally into two sections, without vehicular connection for ten blocks near the central district. The City Planning Commission established in 1916 is backed by a citizens' advisory committee and works through the City Planning Department of the Bureau of Engineering. The preparation

of a comprehensive plan, now in its final stages (in accordance with which some street improvements have already been authorized), the adoption of a zoning ordinance in December, 1928, and the control of land subdivision are the principal planning activities. Altoona is suffering from a lack of subdivision control in the past. The roughness of topography, making it difficult to find suitable sites, largely accounts for the lack of a civic center and a municipal airport. The planning and zoning studies have been financed almost entirely by gifts.

Refs. — 12, 14, 36, 40–41, 43, 80, 94, 128, 134, 136, 159, 182, 184, 186, 201, 211, 232–33, 238, 244, 248.

ASHEVILLE, N. C. Asheville is a health and pleasure resort located high in the mountains, surrounded by fine scenery. The environs are more beautiful than the city itself, and the civic center is architecturally disappointing. The City Planning Commission was established in 1922, and the city plan prepared by Mr. John Nolen was published in 1925. The Chamber of Commerce is whole-heartedly behind the planning commission. Although there is still a lack of accurate city maps, adequate storm water drainage, subdivision control outside the city limits, and zoning (the latter now being prepared), the city has made substantial progress in carrying out the Nolen plan, has established and enforced many police power building lines, and in coöperation with the county is constructing Beaucatcher Tunnel through the mountains to shorten a highway route and open up a valley. The Battery Park Hill regrading project was a private venture of benefit to the city.

Refs. — 14–15, 27, 35, 40, 115–16, 128, 136, 139, 152–53, 155, 201, 209, 212, 219, 234, 238, 244, 253, 267–68.

ATLANTA, GA. Atlanta, "the Chicago of the South," has a serious problem in the form of a railroad cut through the center of the city, necessitating many viaducts. A civic plaza development has long been proposed over a portion of this gulch. The City Planning Commission, established in 1920, recognizes the need of a comprehensive plan. A topographic map being prepared for a regional sewerage system may later become the basis for such a plan. In 1924, the Beeler organization prepared a transit report for Atlanta. Zoning, adopted in 1922 with the advice of Mr. Robert Whitten and now in operation, was inoperative from 1926 to 1928, during which time property values suffered heavy damage. Atlanta, lying in two counties, can exercise subdivision control for six miles outside the city limits in Fulton County, but in De Kalb County only within the city.

Refs. — 12, 36, 41, 108, 129, 140, 144, 160, 168, 172, 179–80, 188, 190, 212–13, 220, 223, 232, 236–38, 268.

BALTIMORE, MD. Outstanding planning features in Baltimore are the excellent topographic survey, the official street plan of 1898 and park plan of 1902, the carrying out of many recommendations of the Burnt District Commission after the fire of 1904, the long series of park and special studies, the distinguished subdivision work of the Roland Park Company, recent extensive port plans and projects, the 1926 Kelker-De Leuw transit studies, the 1926 Olmsted Brothers comprehensive park plan, and the stormy legal siege which zoning has been withstanding, defended by the Board of Zoning Appeals. General planning work has been largely carried on under Major J. W. Shirley, first in the Topographical Survey Commission and later in the Bureau of Plans and Surveys of the Department of Public Works. A Metropolitan District Commission is concerned with sewerage and water-supply. For thirty years the Municipal Art Society has promoted the improvement of the city. The Memorial Plaza was dedicated on November 11, 1927.

Refs. — 14, 26, 33–34, 38, 40, 87–89, 108, 128–29, 137, 139–40, 155, 176, 190, 197, 202, 212–13, 237, 239, 242, 244, 248, 252–53, 255, 266–67, 270, 274, 276, 278, 284.

BERKELEY, CAL. Berkeley, originally laid out as a university neighborhood by the elder Olmsted, has had a number of plan studies, including the Hegemann Oakland-Berkeley report published in 1915; but none has been followed to any appreciable extent. The City Planning Commission secured the adoption of a use zoning ordinance in 1920.
Ref. — 135.

BIRMINGHAM, ALA. Birmingham, the great coal and iron city of the South, has not seriously undertaken comprehensive planning. Mr. Warren H. Manning's sketch plan of the city, published in 1919, was one of the earliest city plans with regional considerations, but little has been accomplished in accordance with it, nor in accordance with the Olmsted park system plan of 1925. A zoning ordinance was passed in 1926. The steel company towns of Westfield and Fairfield and the large-scale, high-class land subdivisions built and projected in the suburbs are especially interesting.
Refs. — 12, 14, 39, 155, 173, 175, 236.

BISMARCK, N. D. Originating as an early terminus of the Northern Pacific Railroad, Bismarck experienced a "boom" resulting in the subdivision of nearly 8 square miles of land, of which 6 are still undeveloped. A zoning ordinance was adopted in 1925 and the Planning Commission created in 1927. A Park Board, elected in 1927, prepared a 5-year program and started immediately to acquire park property. The first unit of the State Capitol building group has been erected.
Refs. — 137, 176, 188.

BOSTON, MASS., AND METROPOLITAN DISTRICT. The establishment of the City Planning Board in 1914 formally initiated city planning in Boston, but city and metropolitan park system planning resulting from the work of Charles Eliot and the Olmsteds had already had a profound influence on development. Many reports of planning interest made prior to 1924 are summarized in a Compendium, prepared by the Planning Board, including its North End, East Boston, and Market surveys. This Board, with an able continuing secretary and one of the leading engineers of the country as chairman for ten years, has made steady progress in basic studies and education of the public, and, with the advice of Mr. Arthur C. Comey, secured a well balanced zoning ordinance (passed 1924) into which volumetric height provisions have recently been introduced. The flat height districts established by law in Boston in 1904 are accounted the beginnings of zoning in the United States. For the relief of traffic congestion, a traffic survey has been made by Mr. Miller McClintock for a Mayor's Committee and has been correlated with thoroughfare studies now nearing completion under the direction of Mr. Robert Whitten for the Planning Board. For the Park Department, a park system plan has been prepared by Mr. Arthur A. Shurtleff. These interlocking studies will eventually form a comprehensive city plan. Work for the city and metropolitan district is linked through advice given by both Messrs. Shurtleff and Whitten to the Division of Metropolitan Planning of the Metropolitan District Commission, which concerns itself largely with park and highway system planning.
Refs. — 5, 7, 17, 30, 39, 41, 46–48, 52, 56, 81, 83, 87, 95, 121, 134, 172–73, 178, 182, 185, 193, 203, 206, 209–12, 214, 220–22, 224, 226, 231, 234, 238, 240, 250–51, 253, 257, 259, 271, 276, 282.

BOULDER, COLO. The Boulder Civic Improvement Association, active since 1903 in this university and resort town at the foot of the Rocky Mountains, financed the Olmsted improvement plan of 1910 and has been responsible for carrying out a large part of it. The Planning and Parks Commission established in 1918 has developed a mountain park system of 6000 acres. Out of a tax rate limited to 10 mills, $\frac{4}{10}$ of a mill is available for purchasing park lands. Long leadership for improvements has centered in Dr. Baird.
Refs. — 15, 77–78, 117, 134, 140, 172, 187, 222, 250, 290.

BRIDGEPORT, CONN. The Bridgeport City Planning Commission, established in 1913, was reorganized in 1927 with few accomplishments except zoning to its credit, in spite of planning studies made in 1915 by Mr. John Nolen. The zoning ordinance (1925–6) was drawn under the guidance of Mr. Herbert S. Swan. The Swan major street plan of 1928 showed that more through streets and subdivision control outside the city limits are particularly needed. Nearness to the debt limit caused the city to have a 5-year financial program prepared in 1926. The long-established Bridgeport Housing Company which took over the Government war-housing developments reports them financially successful.

Refs. — 12, 115, 120, 135, 138, 155, 194.

BRUNSWICK, GA., AND GLYNN COUNTY. Backed by those interested in preserving the character and landmarks of this Georgia coast resort, Brunswick and Glynn County have a joint comprehensive plan prepared by Charles W. Leavitt and Son in 1927. The Glynn County Planning Board established in 1928 at once secured the passage of a comprehensive county-wide zoning ordinance. The Board exercises platting control throughout unincorporated areas of the county, and has acquired several hundred acres of county parks including some typical marshes and fine beaches.

Refs. — 14, 103, 129, 222, 232, 240.

BUFFALO, N. Y., AND NIAGARA FRONTIER. The Buffalo City Planning Association has been the constant promoter and supporter of planning in Buffalo and has coöperated with the subsequent Niagara Frontier Planning Association in the Frontier Region. The Buffalo Association bulletin "City Facts" has circulated planning information. Children in the public schools study the official "Buffalo's Text Book." The present City Planning Commission was established under the revised city charter in 1928, but Buffalo has a long planning history. The original plan was made by Joseph Ellicott in 1804; parks were planned in the 70's and 80's by F. L. Olmsted, Sr.; in 1902 Charles Mulford Robinson made an improvement report, followed by civic center studies by numerous architects. The Niagara Square site was voted by the citizens and plans for the first unit, the new city hall, are now being prepared. A comprehensive zoning ordinance was adopted in 1925, after persistent work by the City Planning Committee of the Council through its executive engineer and by the Buffalo City Planning Association. An extensive recreation survey was also completed in 1925, coöperatively by the Council, Association, and Department of Parks. The Buffalo airport is well developed. Local stimulation of planning, and park and highway developments in Erie and Niagara counties, have resulted from the work of the Niagara Frontier Planning Board, interrupted, however, early in 1929, by political and financing difficulties.

Refs. — 5, 12, 14, 32, 41, 48, 78–79, 87–88, 93, 96, 108, 145, 173, 190, 194, 196, 207, 218, 232, 234–35, 244, 265, 268, 273–74.

Refs. to Niagara Frontier. — 46, 48, 56–57, 60–61, 98, 209, 220–21, 251, 258.

CAMDEN, N. J. A civic center for which plans were prepared by Charles W. Leavitt and Son has proved financially profitable to the city through the sale of surplus land. A convention hall seating 8000 people has been built as a part of it, but the new city hall is being erected elsewhere. The Delaware River Bridge approach and the Crescent Route for by-passing bridge traffic about the city's congested area are notable improvements. The Camden County Park Commission is planning and acquiring park lands with the $2,000,000 voted for this purpose in 1926 and hopes for the eventual development of a parkway connection between Camden and Atlantic City.

Refs. — 54, 126, 140, 209, 224, 237, 266–67, 270, 274.

CANTON, O. The City Planning Commission, established in 1916, has secured a thoroughfare plan by Morris Knowles, Inc. (adopted under the Ohio official plan powers) and a zoning ordinance, passed in February, 1928. Subdivision control under definitely formulated regulations is effective. There is a growing recognition of the value of civic art, expressed recently in ornamental lighting standards and street signs. Canton is almost entirely hemmed in by railroads and few grade crossings have been eliminated.
Refs. — 12, 36, 128, 153, 172–73, 184, 194, 236.

CHARLESTON, S. C. To aid in protecting its many historic buildings Charleston is now preparing a zoning ordinance. The Kiwanis Club financed a preliminary city planning survey by the Technical Advisory Corporation in 1926. There is a recognized lack of through streets, parks and playgrounds, subdivision control, a comprehensive port plan, and an adequate building code. The city, justifiably proud of its waterfront boulevard development, has been stimulated by a gift of $150,000 to undertake boulevard extension, for which Mr. R. S. MacElwee has just completed the plans.
Refs. — 14, 115, 177, 240, 257, 269, 271, 273–74.

CHATTANOOGA, TENN. Civil war battlefields take the place of the usual outlying park reservations at Chattanooga. The Planning Board established in 1923 has been responsible for the preparation of a comprehensive city plan by Harland Bartholomew and Associates. Several recommendations for the major street system have already been carried out, and subdivision control is exercised. A zoning ordinance was adopted in January, 1927.
Refs. — 35, 140–41, 160, 168, 171, 190, 201, 212, 215, 217, 253.

CHEYENNE, WYO. Once a frontier town, now a railroad center, Cheyenne has a city plan prepared by Mr. S. R. De Boer in 1924. Parks are being developed in accordance with it and the streets of Fort Russell are being planted, largely through private initiative and capital. The government airport is well developed. The city lacks a planning commission and has neither adequate zoning nor platting control.
Refs. — 161, 163.

CHICAGO, ILL., AND REGION. In 1909, the famous Plan of Chicago was given to the city by the Commercial Club of Chicago, and in the same year, the Chicago Plan Commission was created. With the exception of the civic center, all of the major projects of that early plan have been accomplished. This record is one of the most inspiring in our city planning history. Chicago is proud of the fact that many improvements such as the Michigan Avenue widening, the lakefront development, and the park systems are world famous. Chicago city planning publicity is noteworthy, especially the teaching of city planning in the public schools through the use of the Wacker Manual. The two-level Wacker Drive, a union railroad station, the Chicago River straightening, and the electrification of the Illinois Central Railroad are recent accomplishments. The comprehensive zoning ordinance was adopted in 1923. The major recommendations of the 1926 traffic survey prepared by Mr. Miller McClintock have been put into successful operation. The Chicago Plan Commission's latest projects include a lakefront park for the entire 26 miles of the city along Lake Michigan, and a system of two-level streets to connect city and suburbs.
Refs. — 3, 5–7, 12, 14, 17, 29, 33–34, 38–39, 41, 46–47, 54–55, 57–59, 61, 79, 83, 85–86, 88, 91, 94–95, 103, 105, 108, 111, 113, 124, 127, 131, 139, 147, 149, 151, 153, 163, 166, 172–73, 178, 185–86, 194–95, 203, 205, 207–10, 212, 214–16, 220–22, 224–25, 231–33, 237, 241–42, 244, 248, 250, 254, 257–58, 263, 274, 276, 284, 290.

CINCINNATI, O. The United City Planning Committee, organized in 1919, and largely responsible for the present unusual civic-mindedness of Cincinnati, financed the preparation of a comprehensive city plan by the Technical Advisory Corporation, which was adopted in 1925 by the city as the official plan, — the first such legally adopted plan in the United States. Since its adoption, with but one or two exceptions all physical improvements have conformed to it, under the guidance of the official City Planning Commission established in 1920. The United City Planning Committee has continued as a citizens' organization, enlarged in scope to support the newly organized regional agency for Hamilton County. Comprehensive zoning for Cincinnati was adopted in 1924 and subdivision control has been constructively developed by the Planning Commission. A union railroad station is under construction as part of extensive railroad terminal rearrangements in accordance with the city plan. The Joint Bond Coördinating Committee with a coöperating citizens' committee has formulated a continuing 5-year program to guide capital expenditures.

Refs. — 12–14, 17, 21, 27–28, 32, 36–38, 41, 50, 56, 79, 85, 89, 93–94, 97, 102–04, 108, 111, 117–19, 125, 127, 132, 136, 140, 147–48, 150, 152–53, 155, 160–61, 172–73, 175, 184, 195, 201, 220–22, 233–35, 241–42, 244, 248–49, 274, 276, 284.

CLEVELAND, O. The Cleveland City Plan Commission, established in 1915, reports as its chief activities civic center development, thoroughfare planning, subdivision control, and zoning studies resulting in a zoning ordinance actually adopted but almost immediately repealed. City planning has had strong support from the Cleveland Chamber of Commerce and a large number of projects have been carried out in conformity with the Whitten thoroughfare plan. The civic center or "Group Plan" of 1903 is rapidly maturing. The recreation survey published in 1920 for the Cleveland Foundation was a notable civic enterprise. The Cleveland Metropolitan Park District Commission has accomplished much toward a regional park system. In 1928 the Cleveland Highway Research Bureau published a report for a plan of highway improvement in the region of Cleveland based on coöperative surveys of highway traffic. The planning visitor is also impressed by the efficient street-car system, the 1000-acre municipal airport, the terminal food market development, and the new railway terminal building near the corner of the civic center.

Refs. — 5, 12, 36, 41, 52, 87–88, 103, 124–25, 129, 139–41, 148, 153, 159, 163, 177, 194–95, 197, 199, 203, 207, 213–14, 216–17, 220–22, 224, 231, 233–35, 237–38, 241, 251–53, 258, 264, 267–70, 275, 283.

COLORADO SPRINGS, COLO. Studies for the development of the streets of Colorado Springs were made by Mr. Charles Mulford Robinson in 1905 and 1912. Aside from tree planting which has relieved the bareness of the streets, few of his suggestions have been carried out. Use zoning adopted in 1925 was followed by comprehensive zoning in 1926. Due to the available mountain areas, there has been little city park development.

Refs. — 15, 167–68, 269, 275.

COLUMBUS, O. The City Planning Commission established in 1921 is responsible for subdivision control, comprehensive zoning, and a major street plan now in preparation. The 1908 civic center plan of Lord, Kelsey, Lowrie, Robinson, and McNeil has been made impossible of attainment by private structures erected within the last five years.

Refs. — 103, 173, 211, 235, 244.

COUNCIL BLUFFS, IA. Even more land has been acquired for parks than was recommended in the park system plan of 1913 by Charles Mulford Robinson. Many separate railroad lines with practically every crossing at grade have tended to isolate sections of the city to the detriment of community spirit. A civic center has been discussed as a means of arousing and focusing community interest. Council Bluffs is zoned but the

city has not availed itself of the authority it possesses to control land subdivision outside the city limits. A route to by-pass livestock trucking around the central part of the city is an acute need.

Refs. — 115, 129, 140, 159–60, 201, 204, 232–33, 236, 249, 253, 258.

DALLAS, TEX. In 1910 a city plan for Dallas was prepared by George E. Kessler and in 1920, in coöperation with Major E. A. Wood, it was modified. The City Plan and Zoning Commission was established in 1919. Under the inspiring leadership of the Kessler Plan Association, much progress has been made in carrying out the Kessler Plan. Public knowledge of the Plan is promoted by a textbook entitled "Our City — Dallas," used in the public schools, and by extensive publicity campaigns. A Citizens' Advisory Committee prepared in 1927 a 9-year financial program known as the Ulrickson Plan. Bond issues totaling $23,900,000 have been voted to carry out this program. Dallas is also noted for success in financing improvements by benefit assessments. The city controls subdivisions for 5 miles outside the city and is now preparing a comprehensive zoning ordinance.

Refs. — x, 7, 12, 17, 27, 36, 43, 78, 88, 90, 95, 103, 119, 125, 127–28, 134, 139, 145, 149, 155, 177, 194, 196, 204, 217, 236, 244, 271, 284, 290.

DAYTON, O. The City Plan Board, established in 1924, secured a comprehensive city plan prepared by the Technical Advisory Corporation (selected chapters published in 1926) and comprehensive zoning passed in 1926. The Board's activities include subdivision control for 3 miles outside the city limits, and annexation and grade crossing elimination studies. Following the special report as part of the comprehensive plan, a bond issue of $8,000,000 has been voted for the grade crossing elimination program, the total cost of which will be three times that. The Citizens' Committee on Coördinated Budget, a continuing advisory but influential organization, is responsible for a 10-year budget plan. Dayton, in the Miami Conservancy District, has some interesting flood control work within the city limits.

Refs. — 12–14, 16, 27, 34, 38, 103, 121, 127, 134, 141, 158, 160, 167, 172, 187, 201, 211, 219–20, 233, 235, 237, 275.

DENVER, COLO. Denver, with its panorama of Rocky Mountain peaks, is famous alike for its mountain parks and for its civic center, to which a $5,000,000 city-county building has been authorized as an addition. The zoning ordinance, framed by Mr. Robert Whitten and adopted in 1925, has been exceptionally satisfactory and well administered. The Denver Planning Commission, established in 1926, has actively conducted educational campaigns, crowned with success by the new state enabling act. The Commission is being advised by McCrary, Culley, and Carhart, and Mr. S. R. De Boer. Their preliminary report on a major street plan, published in January, 1928, is the first of a series of studies to form a comprehensive city plan. A recreation report is just out and transit studies are under way.

Refs. — 15, 17, 27, 32–34, 36, 41, 45, 82–84, 87, 89–90, 92, 95, 97, 105, 124, 128, 134, 139, 172, 182, 194, 202–03, 211, 215, 232, 236, 250, 254, 264, 267–68, 270, 272–74, 276, 290.

DES MOINES, IA. A comprehensive city plan for Des Moines has been recently prepared by Bartholomew and Associates, part of which has been published. The City Plan Commission was created in 1926 and a zoning ordinance adopted the same year. The Commission exercises subdivision control. The waterfront civic center of Des Moines has been developing since 1910 under the impulse of an improvement report by Charles Mulford Robinson. Plans have been made to connect this fine development with the State Capitol group. Railroad grade crossings are a real problem in the heart of the city.

Refs. — 13–14, 29, 34, 37–38, 86, 92, 97, 112, 115, 128, 136, 144, 149, 152–53, 194, 211, 219, 236, 248, 253, 255, 259, 265, 268, 273.

DETROIT, MICH., AND REGION. Presented one by one to the public and the city council, city planning projects in Detroit have been steadily realized, under the guidance of the City Plan Commission established in 1919 and continuously advised by Mr. T. Glenn Phillips. The spectacular super-highway plan of the Rapid Transit Commission in coöperation with the Plan Commission is being constructed, aided by dedications through plat control in the city and surrounding region. The Super Highway Commissions of Wayne-Macomb and of Wayne-Oakland counties, and the Wayne County Commissioners are developing phases of regional planning; and the Rapid Transit Commission's transit studies are regional in scope. In spite of many plans for a civic center, none has yet been adopted, waterfront development for commerce or recreation has not kept pace with other progress, nor has the City Plan Commission been able to secure the passage of a zoning ordinance in the face of opposition by special interests. Beside great thoroughfare improvements and platting control, the commission's most important work has been the development of a system of neighborhood recreation areas. Public and press support for planning has been strong in Detroit, and the Plan Commission's activities have also stimulated city planning in neighboring communities.

Refs. — 12–14, 17, 21–22, 26–27, 29, 32, 36–37, 39, 41, 44, 53, 59, 61, 79, 88, 92, 94, 102–03, 105, 107, 111, 113, 118, 124–25, 127, 129, 134, 138–42, 144, 147–49, 153, 155, 159–60, 163, 177, 194–95, 202–04, 206–09, 211–12, 214, 218, 220–22, 224–25, 231, 235, 241, 244, 252–53, 255, 258, 264, 274–75, 283.

DULUTH, MINN. This important lake port extends in a narrow strip for 26 miles along the waterfront. The City Planning Commission, appointed in 1922, has been active since 1924 and has secured a comprehensive city plan with the advice of Harland Bartholomew and Associates. Zoning was adopted in 1925, and subdivision control is exercised but only within the city limits. The city plan has proved valuable in preventing municipal expenditure for unwise proposals. Duluth has a commanding but incompletely developed boulevard drive from which there are many fine views. The early Burnham civic center plan which is being carried out illustrates the need of comprehensive rather than project planning, for its location blocks a desirable major traffic route.

Refs. — 12–14, 37, 85, 88, 92, 97–98, 122, 129, 136, 140–41, 145, 150, 152, 155, 160, 171, 182, 187, 190, 200–01, 208, 217–19, 231, 234, 241, 253, 258, 265, 270, 273.

DURHAM, N. C. Durham, the seat of Duke University, more than doubled its area in a recent annexation. The City Planning and Zoning Commission has been responsible for the preparation of a comprehensive city plan by Mr. Herbert S. Swan, in 1927, for securing zoning in 1926, and for initiating subdivision control. A 5-year program for all public improvements is being developed.

Refs. — 12, 15, 85, 116, 122, 129, 152, 190, 199, 219.

EL PASO, TEX. Surrounded by the desert and pierced by a mountain range, El Paso has unusual problems. Extensive railroad yards are choking a narrow city throat. Rectangular platting on rough topography has sometimes necessitated replatting, of which the Rim Drive project is an interesting example. The city exercises subdivision control for five miles outside the city limits. An international Boundary Commission is at work on river straightening and the adjustment of boundary lines with Mexico. The official City Plan Commission, established in 1923, published in 1925 the city plan started by the late George E. Kessler and completed by Mr. W. E. Stockwell. Zoning is to be made a major activity of the City Plan Commission in 1929. The Robertson Committee recently reported on a 10-year financial program of public improvements.

Refs. — 12, 15, 27, 40, 85, 96, 119, 128, 134, 136, 139, 150, 153, 159, 202, 244, 269.

EVANSVILLE, IND. The Evansville City Plan Commission, established in 1921, is distinguished for its exceptionally effective and continuous publicity work, which is bearing fruit in the gradual accomplishment of certain projects of the comprehensive city plan, prepared in series by Harland Bartholomew and Associates. A zoning ordinance was enacted in 1925. Recently, city beautification contests conducted by the plan commission have aroused public interest. A topographic map of the entire city is being prepared and annexation studies are nearing completion.

Refs. — 12, 27, 37, 41, 81, 83, 90–94, 96, 105, 112, 115, 134, 140, 148, 159–60, 179, 189, 195, 212–13, 219, 224, 234, 242, 273.

FALL RIVER, MASS. The Fall River Planning Board was established in 1920 and a comprehensive city plan, prepared by Mr. Arthur A. Shurtleff, was published in 1922. In 1927, partial zoning was adopted. In rebuilding the portion of the business section of the city destroyed by fire in February, 1928, a few street widenings have been effected. The city as a whole, hard hit by the depression in textile manufacturing, has not awakened to the opportunities of city planning.

Refs. — 14, 115, 137, 140, 166, 172, 289.

FARGO, N. D. The zoning ordinance of Fargo, a prairie wholesale and retail distributing center, has been in successful operation since 1925. A 5-mile park drive is a striking feature of the city. The Planning Commission, established in 1928, is largely responsible for the framing and passage of a State City Planning Enabling Act in 1929.

FORT WAYNE, IND. Fort Wayne had an early park system plan prepared by the late George E. Kessler and in 1910 published Charles Mulford Robinson's report entitled "Improvement of Fort Wayne." The realtors have actively supported city planning, and continuing newspaper publicity has kept planning in the public mind. The City Plan Commission, established in 1926, engaged Messrs. Bennett, Parsons, and Frost to prepare a major thoroughfare plan and a zoning ordinance. The latter was adopted in November, 1928. In the same year, the city passed a $100,000 bond issue for railroad track elevation.

Refs. — 14, 37, 55, 88, 92, 125, 160, 201, 213, 231, 255, 258.

FORT WORTH, TEX. Fort Worth is divided into sections by broad stream valleys and large central railroad yards. These constitute such serious problems that when a $7,000,000 bond issue was voted in 1925 for public improvements, Fort Worth realized the need of city planning and appointed a City Plan and Zoning Commission. Harland Bartholomew and Associates have made various studies including plans for major streets and railroads. Much land has been acquired in accordance with the earlier comprehensive park system plan of Hare and Hare. A zoning ordinance is being prepared. Platting control is supplemented by the private development of several high-class suburban subdivisions.

Refs. — x, 27, 105, 128, 134, 137, 139, 145, 148, 152, 155, 177, 232, 234, 262, 271.

GRAND RAPIDS, MICH. Known as a wide-awake furniture city, Grand Rapids is active in city planning. There appears to be unusually good coöperation among the city departments. An early plan report prepared by Messrs. Brunner and Carrère in 1909 marked the beginning of civic improvement. The City Plan Department was established in 1919 and zoning was adopted in 1923. Based on a comprehensive plan prepared with the advice of Harland Bartholomew and Associates, "Planning the Future of Your City" was published in 1927 and distributed by firemen at every house door. A number of projects, particularly street widenings and openings, have already been carried out in accord-

ance with this plan, but waterfront development has been largely neglected. Under the guidance of Mr. Charles W. Garfield, the Park and Boulevard Improvement Association can show substantial recreation accomplishments. Kent County and the State of Michigan are building a trunk line highway completely encircling Grand Rapids to by-pass heavy truck traffic around the city.

Refs. — 16, 31, 36, 85, 92, 97, 103, 120, 125, 139, 152, 168, 175, 191, 204, 217, 223, 236, 261, 276, 290.

GREENSBORO, N. C. The early Greensboro planning studies of Mr. Charles Mulford Robinson were interrupted by his death. Since then, the city has had a topographical survey by R. H. Randall and Company, major street and grade crossing elimination studies by Messrs. Fellheimer and Wagner, and a zoning ordinance, framed by the Technical Advisory Corporation and adopted by the city in 1926. The City Planning Commission, established in 1921, exercises subdivision control. Thirteen railroad grade crossing eliminations are either under contract or already completed, comprising a $3,000,000 program.

Refs. — 12, 40, 108, 126, 128, 140, 148, 152, 167, 182, 194, 200, 212, 223, 235–36, 255.

HARRISBURG, PA. Harrisburg, the capital of Pennsylvania and a railroad junction point, is distinguished for its very fine riverfront development, in line with Mr. Warren H. Manning's park recommendations. Linked with the riverfront, the State Capitol group plan, by the late Arnold W. Brunner, is being gradually carried out. The city has undertaken several important street improvements to eliminate railroad grade crossings. In 1926, Mr. Herbert S. Swan's traffic and thoroughfare survey was published. A zoning ordinance was also prepared but not adopted. Zoning appears to be an unpopular subject in Harrisburg where intelligent public opinion has not yet been developed for its support. The City Planning Commission is not very active.

Refs. — 38, 115, 122, 125, 129, 153, 177, 194, 224, 235, 250, 253, 259, 265, 268, 274.

HARTFORD, CONN. The function of Hartford as an insurance center as well as a state capital is visible in monumental commercial architecture. This city had the first city planning commission established in the United States (1907). The Olmsteds had early advised the city on the development of its fine parks, Messrs. Carrère and Hastings reported on a city plan in 1911, and Mr. Herbert S. Swan presented a traffic and thoroughfare plan in 1926. Comprehensive zoning was adopted in 1926. Eminent domain building lines, established for many years, have proved valuable in subsequent street widenings. In 1928, a committee was appointed by the Governor of Connecticut to study the feasibility of creating a metropolitan district about Hartford. Adequate subdivision control and railroad grade crossing eliminations are problems which the city has not yet solved.

Refs. — 40, 123, 125, 137, 140, 167, 194, 199–202, 216, 236, 244, 252, 261.

HIGHLAND PARK, ILL. Highland Park, a North Shore residential suburb of Chicago, is free from apartments except for a few over stores in the commercial district. The city secured planning advice from Mr. Frank Bennett in 1920–21, adopted zoning in 1922 and had a comprehensive plan for its development prepared by Mr. Jacob L. Crane, Jr., in 1924. The City Planning and Zoning Commission controls subdivision development. The acquisition of a civic center site was recently financed by bond issue. A central business plaza, involving the depression of railroad tracks, is planned. Highland Park is participating in the work of the Chicago Regional Planning Association.

Ref. — 15.

HOUSTON, TEX. Following early planning advice from the late George E. Kessler, from Mr. Arthur C. Comey, and more recently from Hare and Hare, the park and recreation system of Houston is well developed, with special emphasis on bayou shore preserva-

tion and school playgrounds. The active City Planning Commission, established in 1927, engaged Hare and Hare to prepare a comprehensive city plan, of which a zoning ordinance will form part. The elimination of railroad grade crossings is one of the major city problems. A large portion of the necessary land and several buildings have already been secured for the civic center. The Houston Forum of Civics and its publication, "Civics for Houston," have actively promoted city planning.

Refs. — x, 12, 14, 27, 34, 41, 87, 89, 104, 128, 134, 136, 139, 155, 158, 160, 177, 194, 202, 217, 219, 224–25, 232, 236, 240, 248, 251, 255, 266, 269, 272.

INDIANAPOLIS, IND. Indianapolis is said to owe its wide streets to the influence of L'Enfant's plan of Washington. Mr. George E. Kessler early gave advice on parks and on the height of buildings about Monument Square. The limits adopted have subsequently been incorporated into the zoning ordinance. Indianapolis claims the first union station in the United States. Railroad grade crossing elimination projects, started in 1910, have gone more or less steadily forward ever since. The City Plan Commission was established in 1921. A zoning ordinance, framed by Mr. Robert Whitten, was adopted in 1922. Subdivision control is exercised for five miles outside the city. In 1925, Mr. J. R. Bibbins reported on a major street system. A majority of the stream frontage within the city limits has been acquired for park purposes. The War Memorial Plaza is an outstanding development.

Refs. — 14, 37, 41, 81, 92, 123, 134, 139, 158–59, 172, 194, 200, 206, 217, 223, 232, 234, 252–53, 266–67, 270, 375.

JACKSONVILLE, FLA. A City Planning Advisory Board of 21 members was established in February, 1928. A comprehensive city plan is being prepared with the advice of Mr. George W. Simons, Jr. Piecemeal zoning was adopted in 1925. Heavy losses are reported as a result of inadequate subdivision control.

Refs. — 12, 27, 33, 80, 97, 114, 134, 141, 148, 166, 232, 240.

JERSEY CITY, N. J. Jersey City reports a number of projects based on the "Jersey City Development Plan of 1920," especially the Journal Square improvement. Recent thoroughfare improvements at the Holland Tunnel entrance and on approach streets are interesting. Use zoning was adopted in 1922. There is no planning commission.

Refs. — 14, 167, 172, 239.

JOHNSTOWN, PA. The City Planning Commission was established in 1914, and "A Comprehensive Plan for Greater Johnstown," prepared by Messrs. Hornbostle and Wild, was published in 1917. The zoning ordinance prepared by Morris Knowles, Inc., was adopted in 1926. Land subdivision is controlled for three miles outside the city limits. Johnstown is justly noted for its city planning educational and publicity work carried on over a long period of years. An informed public has supported the carrying out of a large proportion of the city plan recommendations. An intown park, set aside as a result of the original plan of 1800, has been preserved and embellished.

Refs. — 11, 14, 17, 27, 36, 40, 79, 83, 85, 91–92, 94, 96–97, 128, 133, 136–37, 139, 145, 159–60, 166, 201, 215.

KANSAS CITY, MO. In the acquisition of its famous park system, designed by the late George E. Kessler, Kansas City has made extensive use of benefit assessments. The parkways, the high type of residential development in the Country Club district, and the new Liberty Memorial are perhaps the city's most distinctive features. The city has secured advice on street planning from Harland Bartholomew and Associates and on parks from Hare and Hare. The functions of the Trafficway Commission, which in 1928

published a report on major streets, overlap somewhat those of the City Plan Commission, created in 1920. There is also an active Art Commission. Zoning was adopted in 1923. There is an admitted need of regional planning and an awakening interest in it.

Refs. — 5, 12, 14, 25, 39, 41, 63, 89, 123–24, 128, 136, 140–41, 155, 172, 200–01, 203, 211–12, 232, 244, 249, 253, 256, 261, 267–68, 273–74, 276, 279.

KENOSHA, WIS. Kenosha, which won first place in the Wisconsin "Better Cities" contest in 1925, is outstanding in city planning accomplishments among the cities of its size (see Chapter IX). The City Planning Commission was established in 1922 and a comprehensive city plan report by Mr. Harland Bartholomew was published in 1925. Many improvements, including street widenings, have been made in accordance with this plan. The vision clearance and building line provisions of the zoning ordinance, adopted in 1924, have proved valuable. Subdivision control is exercised for 3 miles outside the city limits. Kenosha is acquiring large park holdings along Lake Michigan and is making rapid progress in the development of a civic center.

Refs. — 12, 17, 27, 36, 43, 81, 96, 111, 123–24, 133, 139, 149, 153, 156–57, 160, 168, 172, 181–82, 198, 213, 219, 238, 258, 266, 268–70, 275.

KNOXVILLE, TENN. In Knoxville we find an interesting example of a city, with a one-street business district, opening a new thoroughfare at great cost and expanding the business district over an area five or six blocks wide. This is one result of the major street system report published in 1927 as part of a comprehensive city plan being prepared by Harland Bartholomew and Associates. The City Planning Commission, established in 1926, secured the adoption of a zoning ordinance in 1928. Subdivision control is exercised only within the city limits, and park development is entirely inadequate.

Refs. — 5, 12, 14, 27, 36, 92, 102, 104, 112, 116, 124–25, 129, 134, 136, 140, 153, 168, 172, 179, 190, 194, 201, 205, 210, 215, 219, 232, 244, 248, 252, 284.

LAFAYETTE AND WEST LAFAYETTE, IND. The City Plan Commission of West Lafayette was established in 1926 and the Lafayette Plan Commission in 1928. Studies made jointly for both cities by Mr. Lawrence V. Sheridan have been financed largely by gifts from the Centennial Celebration fund. West Lafayette adopted a zoning ordinance in 1927. Lafayette has an ordinance prepared but not yet adopted. A joint civic center for the two cities, proposed on the west bank of the Wabash River on land already owned by West Lafayette, seems likely to be accomplished. Both cities are exercising subdivision control for five miles outside their limits.

Refs. — 89–90, 99, 213, 266.

LANSING, MICH. Lansing, an automobile manufacturing center and the capital of Michigan, had a city plan prepared by Mr. Harland Bartholomew in 1922. A zoning ordinance was adopted in 1927. Lansing has no city planning commission, exercises no subdivision control outside the city limits, and has entirely neglected the improvement of the riverfront within the central portion of the city. Street trees, however, are notably well cared for and the Park Department has been active in the acquisition and development of park lands.

Refs. — 138, 153, 213.

LARAMIE, WYO. The Laramie Planning Commission was established in 1923 as a zoning commission, but its chief activity has been the acquisition of park lands along the river. Another commission, appointed in 1927, prepared a piecemeal zoning ordinance adopted in November, 1927. Railroad rights of way divide the city into two parts which are to be connected by a viaduct. No subdivision control is exercised.

Refs. — 39, 171, 206, 223.

LINCOLN, NEB. The Municipal Plan Commission, established in 1912, was instrumental in securing a plan by Mr. Myron H. West. This plan was not carried out and the commission died a short time later. There is no city planning commission in Lincoln at the present time. In 1921, Messrs. Goodrich and Ford prepared a zoning ordinance which was not adopted. An ordinance regulating use and height was finally adopted in 1926. The Capitol Planning Commission is studying the surroundings of the splendid new state capitol and considering the possibility of developing an axial scheme with other public or semi-public buildings.

Refs. — 15, 44, 82, 135, 161, 179, 188, 190, 206, 223, 266.

LITTLE ROCK, ARK. Little Rock, in common with many other Southern cities, is experiencing a renaissance. In 1928, the City Planning Commission was established and Mr. John Nolen engaged to prepare a comprehensive city plan. Virtually nothing had resulted from his park system plan of 1913, due primarily to the World War, to financial difficulties resulting from low cotton prices, and to the inability of the city at that time to issue bonds. In 1924, an interim zoning ordinance was adopted and is still in force.

Refs. — 32, 88, 98, 104, 134, 159, 161, 201, 273.

LOS ANGELES, CAL., AND REGION. In 1909, Mr. Charles Mulford Robinson presented a report entitled "Los Angeles, the City Beautiful" to the Municipal Art Commission. In the same year a zoning ordinance regulating use only was adopted. It was made famous by the favorable decision of the United States Supreme Court. The city charter has since imposed a height limitation of 150 feet, exceeded only by the new City Hall, the major unit in the new civic center. Building lines have been established in many residential sections, and the zoning ordinance is now being revised with the intention of adding height and area provisions. The Board of City Planning Commissioners — established in 1920, seven years after the Citizens' City Planning Association was formed — has established platting control, made especially effective by county coöperation, and is gradually acquiring a comprehensive city plan through the preparation of a series of related studies. The commission has secured public support through well conducted publicity. Improvements costing many millions have either been accomplished or are under way in accordance with the comprehensive street plan by Messrs. Olmsted, Bartholomew, and Cheney, published in 1924. The recommendations of Mr. Miller McClintock's street traffic survey for the Traffic Commission of the City and County of Los Angeles have been put into successful operation. A plan for railroad grade crossing separation in the San Fernando Valley section of Los Angeles has been useful in preventing the establishment of new grade crossings. The appearance of public structures in Los Angeles is controlled by the very active Municipal Art Commission. A park system study by Messrs. Olmsted and Bartholomew, prepared for the Citizens' Committee on Parks, Playgrounds and Beaches, is related to the general plans of the Board of City Planning Commissioners. Established in 1922, the Regional Planning Commission of Los Angeles County has become one of the foremost official county planning agencies in the country and its technical studies and exceptionally effective publicity work are bearing fruit in aroused activity in municipalities throughout the county. Use zoning and platting control are in operation and more comprehensive planning studies in progress.

Refs. — 12–15, 17, 27, 29, 34, 36, 38–39, 41, 43, 49, 58, 78, 83, 85, 87, 90–93, 97, 99, 108, 121, 124–25, 129, 134, 141, 148–49, 153, 159, 180, 185–87, 194, 196, 198, 207, 209–10, 214, 220–22, 228, 236–37, 241, 257, 265, 276, 283.

LOUISVILLE, KY. Louisville has some very attractive parks, well connected with parkways. Grade crossing separations are being carried out in accordance with the Technical Advisory Corporation's transportation studies. Mr. L. Segoe's traffic survey

for the Mayor's Traffic Committee was published in 1927. An interim zoning ordinance, adopted that same year, preparatory to a comprehensive ordinance, has been upheld by the courts. Practically all new growth is taking place outside the city limits; and while subdivision development is controlled through the city engineer's office for three miles outside, due to the lack of a guiding plan this control is said to be inadequate. However, the City Planning Commission, established in 1928, intends to prepare a comprehensive city plan.

Refs. — 5, 21, 81, 117, 138, 166, 169, 194, 223, 234–35, 252, 284.

MADISON, WIS. Madison, built about three lakes on a terminal moraine, had a plan by Mr. John Nolen published in 1911 entitled "Madison, a Model City." Parks have been acquired in accordance with this plan and the present proposed civic center development is based upon it. The Madison Park and Pleasure Drive Association and the Madison Park Foundation have been largely responsible for the acquisition of parks and parkways. About 40 per cent of the waterfront within the city limits is publicly owned. The City Plan Commission was established in 1920. In 1921, Mr. Harland Bartholemew completed a comprehensive city plan. Some of the results are a zoning ordinance adopted in 1922, street improvements, subdivision control, the elimination of three railroad grade crossings, and a change in the location of the yards of the Northwestern Railroad.

Refs. — 13–15, 34, 36, 40, 43, 52, 96, 126, 134, 136, 139, 145, 148, 153, 175, 194, 213, 234, 250, 258, 265.

MANCHESTER, N. H. Manchester, conservative and suffering from a financial depression of the textile industry, has accomplished little city planning. A comprehensive zoning ordinance, framed by Mr. Arthur Comey, was adopted in 1927. The principal activity of the City Planning Board appointed in the same year has been the education of its members.

Refs. — 14, 32, 34, 36, 182.

MELROSE, MASS. The Melrose Planning Board is well known for its use of students in the high school civics classes for the preparation of a "present use" map and the collection of population data. As a demonstration of practical civics, a means of securing a use map at slight expense and informing the public of the benefits of zoning, the Planning Board accounts this work very successful. The zoning ordinance was adopted in 1923. Maps for a comprehensive city plan are now being prepared by the city departments most vitally concerned.

Refs. — 96–98, 103.

MEMPHIS, TENN. Memphis is outstanding in all-round city planning accomplishments. The early park system studies of the late George E. Kessler are largely responsible for the city's encircling parkway. The City Planning Commission was established in 1921 and a zoning ordinance adopted in 1922. Transit studies for Memphis have been made by Mr. Ross Harris. Nearly $20,000,000 have been spent thus far in carrying out projects recommended in the "City Plan for Memphis" prepared by Mr. Harland Bartholomew and published in 1924. Eminent domain building lines have been used successfully in street widening projects. Land subdivision control is exercised for five miles outside the city limits. (For the success of the Memphis plan, see Chapter IX.)

Refs. — 12–13, 17, 27, 36–39, 42, 89, 94, 111, 124–25, 129, 132–33, 139, 144, 148, 152–53, 159–60, 167, 172, 179, 191, 196, 200, 211–12, 219, 236, 242, 249, 253–54, 258, 268–69, 275, 284.

MILWAUKEE, WIS., AND REGION. Close coöperation of city and county in planning enterprise distinguishes Milwaukee's development. After various early planning studies the Board of Public Land Commissioners was established in 1915 as the city's official

planning body. In 1920 the Board, with advice from Messrs. Bassett and Comey, secured the adoption of zoning. The Board has exercised platting control effectively, explained in the well-known Milwaukee "Platting Guide." Since the organization of the County Regional Planning Department in 1924, platting outside the authority of the city has come under the jurisdiction of this new body, which in 5 years has initiated a county park and parkway system, established building lines for wide highways, secured county zoning, and improved land subdivision. Fitting with County highway plans, the Board of Public Land Commissioners is developing a major thoroughfare plan for the city. The civic center is developing rapidly. The Harbor Commissioners published a port plan in 1922; in 1928 the Transportation Survey Committee published a report by McClellan and Junkersfeld, Inc., independent of other planning studies; and in 1928 a playground survey was made for the city. Although Milwaukee has never developed a comprehensive city plan, the studies of the Board of Public Land Commissioners dovetail together toward that goal, just as the County work is forming a county plan.

Refs. — 13–14, 17, 27, 29, 34, 36, 50, 58, 81, 89–90, 92, 97, 103, 116, 120, 134, 136, 139, 147–48, 150, 172, 179, 184–85, 187–88, 194, 204, 209, 220–21, 231, 236, 241, 248, 255, 258, 265, 268–70, 276.

MINNEAPOLIS, MINN. Minneapolis, famous for its park system, had an elaborate city plan prepared in 1917 by Mr. Edward H. Bennett published in a volume edited by the late Andrew Wright Crawford. Park plans have been prepared largely by Mr. Theodore Wirth. A zoning ordinance was adopted in 1920 and the City Planning Commission was established in 1922. Subdivision control is exercised for 3 miles outside the city limits. Many mimeographed reports on specific plan projects have been issued by the City Planning Commission and a comprehensive street plan and zoning ordinance have been prepared with the advice of Mr. Harland Bartholomew. Eminent domain building lines have been used with success since 1903. A 5-year capital improvement program by the Board of Estimate and Taxation and extensive railroad grade crossing eliminations are other points of interest. Minneapolis joined in organizing the Metropolitan Regional Planning Association of Minneapolis, St. Paul, and Environs.

Refs. — 5, 12–14, 27, 36, 41, 52, 55, 58, 89, 94, 97, 108, 120, 125, 134, 139–40, 145, 171, 179, 185, 187, 190, 194, 200–01, 211, 234–35, 246, 248, 250, 253–55, 258, 260, 274–75.

MONTEREY PENINSULA, CAL. Park and major street studies for Monterey were made by Olmsted Brothers in 1926. Mr. Charles H. Cheney gave zoning advice, and an ordinance was adopted in 1927. The Monterey Peninsula Regional Plan Commission, appointed by the Governor of California in January, 1928, as well as the Communities Conference of the Monterey Peninsula (a citizens' committee) organized at about the same time, functioned for only a short period before becoming inactive.

Ref. — 52.

NASHVILLE, TENN. Nashville is notably lacking in city planning, zoning, and subdivision control. The park system, despite the recent addition of a large, outlying park, is not well balanced. The city has centered its funds and its civic effort in building a replica of the Parthenon.

Refs. — 177, 274, 289.

NEWARK, N. J. As a unit in a proposed comprehensive plan a housing report for Newark was prepared in 1913 by Dr. James Ford. After other special reports, Messrs. G. B. Ford and E. P. Goodrich in 1915 submitted their comprehensive plan. In view of the fact that there has been no continuing city plan commission in Newark, a surprisingly large number of the projects recommended in this planning report have been accomplished. The 1920 zoning ordinance was abandoned during the New Jersey zoning diffi-

culties, and a new ordinance is now being prepared. The airport, developed by the Department of Public Affairs, Bureau of Docks, promises to be one of the most efficient and well located fields in the United States. The Essex County Park Commission, advised by the Olmsteds, has created one of the earliest county park systems in the United States, which has greatly increased land values in the surroundings of Newark.

Refs. — 102, 133, 220, 239, 244, 252, 275.

NEW BEDFORD, MASS. In 1894, Messrs. Olmsted, Olmsted, and Eliot prepared a park plan for New Bedford. In 1924, the Technical Advisory Corporation prepared a reconnaissance survey from which little has materialized. The Planning Board, composed entirely of city officials, was created in 1925, supplanting a former board of citizens appointed in 1923. To an unusual degree the city engineer has served to unite in his office planning activities and the protection of zoning. A zoning ordinance, framed with the advice of Edward M. Bassett, Esq., was adopted in 1925. Billboards are well regulated and subdivision control is exercised within the city limits. All but two grade crossings on the main line of the railroad have been eliminated. New Bedford is probably unique among cities of the United States, in that workingmen's homes are located in the most naturally beautiful section of the city.

Refs. — 14, 32, 40, 89, 128, 135, 140, 145, 152–53, 167, 172, 182, 211, 223, 238, 248, 269.

NEW HAVEN, CONN. The Report of the New Haven Civic Improvement Commission, prepared by Messrs. Cass Gilbert and F. L. Olmsted, was published in 1910. In 1913, the City Plan Commission was established. A zoning ordinance, prepared by the Technical Advisory Corporation and revised by Edward M. Bassett, Esq., was adopted in 1926. Subdivision control is inadequate. Mr. Olmsted has recently given advice on street replanning. Street improvements carried out by the city engineer in accordance with general plans have been very beneficial.

Refs. — 32, 36, 40, 129, 139, 211, 216–17, 223, 232, 237, 253, 276, 284.

NEW ORLEANS, LA. New Orleans, a great port and a city with distinctive individuality, has had many peculiar problems requiring broad planning. The Drainage Commission plan of 1895 has had far-reaching results and accounts for many of the city's very wide streets. The important planning activities of the Levee Board and of the Port Commissioners are now being linked to a city plan. The City Planning and Zoning Commission, established in 1923 and reorganized in 1927, is having a comprehensive plan prepared by Harland Bartholomew and Associates, with coöperation from Mr. Miller McClintock on street traffic studies. The many piecemeal zoning ordinances which have been accumulating since 1900 have just been supplanted by a comprehensive zoning ordinance. To preserve the old French Quarter of the city, plans contemplate the by-passing of traffic. The Major Street plan, already published, is serving as a guide for new construction. The Levee Board's Lake Pontchartrain project will create a great waterfront park.

Refs. — 14, 27, 34, 38–39, 44, 88, 104, 106, 112, 134, 136–37, 167, 194–95, 206, 210, 218–19, 223, 231, 240, 258, 271.

NEWPORT, R. I. The Newport Improvement Association sponsored the report on the improvement of Newport prepared by Mr. F. L. Olmsted in 1913 and, jointly with the Chamber of Commerce, the city plan by Mr. A. A. Shurtleff in 1926. Little has been accomplished in accordance with either of these plans. Zoning was adopted in 1922, but no adequate subdivision control has been exercised. Concerted effort of residents has been successfully directed toward the preservation of historic examples of colonial architecture.

Refs. — 15, 138, 257, 271–72.

NEWTON, MASS. In Newton, a residential suburb of Boston, the Planning Board, established in 1913 and given the duties of a Board of Survey in the control of land subdivision in 1925, is guiding city development in accordance with the "Special Report upon a System of Thoroughfares, Parks, and Playgrounds" prepared by Mr. Arthur A. Shurtleff in 1921. A comprehensive zoning ordinance enacted in 1922 has been exceptionally valuable in directing recent rapid growth and has gained the almost unanimous approval of property owners: 90 per cent of requests for changes have been from a lower to a higher classification.

Refs. — 15, 173, 175, 191.

NEW YORK, CITY AND REGION. The recently completed surveys and plans of the Regional Plan of New York and Its Environs are an outstanding planning achievement not only in the New York Region but in the entire world. Volume VIII of the Regional Survey contains a summary of previous planning activity in the city and region. State legislation in New York and New Jersey and extensive local planning activities have resulted from the work of the Regional Plan. Stimulated by the Regional Plan, the Mayor of New York appointed the City Committee on Plan and Survey which urged in its report an official planning agency for the city. A bill prepared for the Mayor by Edward M. Bassett, Esq., creating a city planning commission for the City of New York, failed to pass the State Legislature in 1929 but will doubtless be acted upon at the next session. The Port of New York Authority is a great regional agency developing transportation facilities in New York and New Jersey, representing interstate coöperation already successful in the Palisades Park. The vast transit problem of the New York region has been studied in reports too numerous to mention. Of planning achievements of the city itself, the zoning ordinance passed in 1916 — the first comprehensive ordinance in America — has had the most profound influence. The preliminary studies by the Heights of Buildings Commission and the City Planning Committee of the Board of Estimate and Apportionment set a high standard for future official planning in New York.

Refs. — 5, 7, 11, 14, 17, 35, 46–47, 53–54, 57–59, 61, 87, 96, 106, 150, 162–63, 165, 172–73, 178, 184, 192, 194, 197–98, 202–03, 208–09, 214–15, 220–22, 227, 230, 233, 237, 239, 242, 247, 255, 257, 259–62, 272–74, 276, 282, 293.

NORFOLK, VA. Norfolk, an important Atlantic port, has an indented shore line on three sides. The City Planning Commission was established in 1918. In 1923, the Technical Advisory Corporation prepared a comprehensive city plan. A zoning ordinance was adopted in 1924. Subdivision control is exercised for 10 miles outside the city limits. The Norfolk Traffic Commission prepared a transit report in 1926, the recommendations of which, with but one exception, have been carried out. A cultural center with an art museum, Y. M. C. A., Masonic Building, and city auditorium is developing according to plan.

Refs. — 12, 14, 55, 97, 107–08, 128, 136, 144–45, 152–53, 167, 200–02, 212, 219–20, 225, 240, 261, 266.

OAKLAND, CAL. The "Report on a City Plan for the Municipalities of Oakland and Berkeley" by Dr. Werner Hegemann was published in 1915. A zoning ordinance was adopted in 1919, but the city to-day is not considered well zoned. The Major Highway and Traffic Committee of One Hundred, organized by leading citizens in 1926, financed the preparation of the major street plan of 1927 by Harland Bartholomew and Associates. Mr. W. C. Bernard of St. Louis has given advice on benefit assessment practice to carry out the projects of this plan. The City Planning Commission, created in December, 1927, has been active primarily in zoning and in subdivision control. A voluntary organization known as the East Bay Regional Planning Association is attempting to awaken citizens to the need of regional planning. The Oakland airport deserves special mention.

Refs. — 12, 36, 39, 97, 105, 124, 135, 194, 241, 244, 248, 255.

OGDEN, UTAH. Ogden, an important railroad center set among mountains, is not yet thoroughly awake to the benefits of city planning and zoning. Although the mayor appointed a zoning committee in 1928, action has been delayed by a feeling on the part of its members that the citizens are not yet ready for zoning. No subdivision control is exercised.

OKLAHOMA CITY, OKLA. Much park land has been acquired largely in accordance with the park system plan of 1910 prepared by Mr. W. H. Dunn, but development has not kept pace with acquisition. Hare and Hare have been engaged to complete and bring up to date the early city plan of the late George E. Kessler. The City Planning Commission was created in 1920 and a zoning ordinance adopted in 1923. The Regional Planning Commission, as required by the Oklahoma Enabling Act, supplements the City Planning Commission by controlling land subdivision in the territory 3 miles outside the city limits. In new subdivisions the dedication of open spaces equal to 5 per cent of the area being developed is required as a condition of plat approval. Railroads, centrally located, have been a serious handicap. Part of a $10,000,000 bond issue, passed in 1927, is being used to pay the city's share of the cost of removing a series of railroad tracks and elevating others, thus eliminating a large number of grade crossings. Flood control is still a problem.

Refs. — 12, 27, 36, 39, 51, 81, 89–90, 94, 97, 105, 117, 121, 127–28, 134, 137, 139, 144, 147, 149, 156, 159, 188, 199, 201, 211, 215, 219, 223, 231–32, 234, 237, 248, 250, 253, 275.

OMAHA, NEB. The City Planning Commission of Omaha, an important railroad and livestock center, was established in 1915. Preliminary city planning studies were made in 1917 by Messrs. Ford, Goodrich, and Robinson. In 1919 Mr. Harland Bartholomew reported on city planning needs with especial reference to the street system and river drive. Approximately 5 miles of river frontage have been acquired and numerous street improvements made in line with his recommendations. A zoning ordinance was adopted in 1920. Subdivision control, strongly supported by leading realtors, is exercised for 3 miles outside the city limits. Transit studies are being made by Mr. Ross Harris. A new union station which is to be built on the site of the present union station will ultimately be used by practically all of the railroads entering Omaha.

Refs. — 12, 36, 134, 139–41, 159, 180, 190, 201, 204, 215, 220, 234, 253, 258, 284.

PATERSON, N. J. The Society for Establishing Useful Manufactures, founders of Paterson, engaged L'Enfant about the year 1795 to prepare a city plan, which unfortunately was not followed, and the last copy is believed to have been destroyed by fire. The Paterson City Plan Commission, created in 1920, is responsible for the zoning ordinance, adopted in 1921 and revised in 1924, which suffered little during the New Jersey difficulties. In 1922 Mr. Herbert S. Swan prepared a report on thoroughfares and traffic and one on separation of street and railroad grades which is largely responsible for the proper design of these separations previously authorized in an extensive program. The Passaic County Plan Association, composed of about three hundred citizens, was instrumental in securing the establishment of the Passaic County Park Commission and the authorization for the Passaic County Planning Commission. Acquisition of park lands is now going forward according to a plan prepared by Olmsted Brothers.

Refs. — 138, 194, 223, 235.

PHILADELPHIA, PA., AND TRI-STATE DISTRICT. Through the efforts of the Fairmount Park Commission, the Fairmount Park Art Association, the City Parks Association, and the Art Jury, combined particularly in the educational work of the late Andrew Wright Crawford, central Philadelphia can show in the Fairmount Parkway a

monumental civic achievement, crowned by the new art museum. The Roosevelt Boulevard, the improvement of the Schuylkill River shores, and the great Pennsylvania railroad projects for a new station and track depression are likewise inspired by strong civic spirit, although there has never been an official city planning commission. In the Department of Public Works for several years subsequent to 1912 studies for comprehensive planning were carried on. Various zoning studies in past years have always met with defeat, and Philadelphia and many of its suburbs are unprotected. The mayor has recently appointed a Citizens Committee on City Planning preliminary to forming a planning commission. Current planning centers in the activities of the Regional Planning Federation of the Philadelphia Tri-State District, which has secured public support, and by coöperation from officials in the region made progress in regional highway and park plans. Extensive publicity work was carried on in connection with the campaign for the Fund recently raised, and the technical work of the Federation has been expanded.

Refs. — 4, 14, 17, 46, 54, 57–59, 61, 78, 87, 90, 93, 102, 105, 108, 138, 155, 163, 177, 194, 197, 207, 209, 214, 220–21, 224–25, 231–34, 237–38, 240, 248, 250, 253–54, 256, 259, 263–64, 267, 272–74, 276, 278.

PHOENIX, ARIZ. The City Planning Commission of One-Hundred, organized by the Chamber of Commerce at the time of the preparation of the early Bennett city plan, has continued sporadically, with few accomplishments to its credit. No adequate subdivision control is exercised and despite occasional agitation, no zoning ordinance has been adopted. A revival of planning interest is shown in the recent appointment of Mr. Stephen Child as city planning consultant.

Refs. — 12, 135.

PITTSBURGH, PA., AND REGION. The year 1923 is memorable in Pittsburgh's city planning history, for in that year a zoning ordinance was adopted, the Allegheny County Planning Commission created, and the series of plan reports which had been prepared with the advice of Mr. Harland Bartholomew for the Citizens Committee on the City Plan of Pittsburgh were published. In 1926, this same organization issued a Report to the City Council on the Inter-District Traffic Circuit. It also publishes an interesting bi-monthly bulletin called "Progress." The City Planning Commission, established in 1911, has never controlled the subdivision of land outside the city limits, but has worked especially for the improvement of hillside development within the city. Because of exceptionally rugged topography, Pittsburgh needs the accurate geodetic and topographic survey being prepared by the City Planning Department. The City Transit Commission looks toward securing benefit assessment powers as a means of solving a vexing rapid transit puzzle. The Report on a Recommended Subway, prepared by Messrs. Daniel Turner and Winters Haydock and published in 1925, is the most recent of many transit studies. The Traffic Bureau and the Better Traffic Committee have used effective educational and publicity methods in their efforts to improve street traffic conditions. Although careful studies were made by a special consolidation commission, the movement to establish the Federated City of Pittsburgh has not yet been successful.

Refs. — 14, 17, 20, 27, 30, 36–37, 39, 41, 55, 80, 87, 90, 92, 95, 98, 101, 103, 108, 112, 115–16, 121, 125, 129, 131–32, 136, 139–40, 149, 152–53, 159, 175–76, 178, 184, 194, 197, 200–01, 205, 211, 213–16, 219–22, 224, 233, 235, 238, 242, 244, 248, 253, 261, 276, 284, 289, 375.

PONCA CITY, OKLA. Ponca City, a young, progressive oil-refining city, is starting early to guide its growth. The Ponca City Planning Commission was established in 1924. The comprehensive city plan prepared by Mr. Jacob L. Crane, Jr., published in 1927, has proved exceedingly popular and satisfactory. Under the Oklahoma statutes, it was necessary to organize the Ponca City Regional Planning Commission to control subdivision

for 3 miles outside the city limits. Subdivision control and the zoning ordinance, adopted in 1927, are considered valuable civic assets.

Refs. — 12, 17, 36, 51, 111, 129, 139, 152, 160, 167–68, 190, 219, 266, 269, 375.

PORTLAND, ME. City planning activity in Portland has been limited to the adoption of a zoning ordinance in 1926 and to its subsequent enforcement. A small pamphlet, issued to correct erroneous impressions about zoning, has proved valuable. While the Park Commission is said to possess some city planning powers, it has never exercised them, and there is no enabling act for city planning commissions in the State of Maine.

Refs. — 167, 172, 182.

PORTLAND, ORE. The Greater Portland Plans Association had a city plan prepared in 1912 by Mr. E. H. Bennett which has had a decided educational value. The City Planning Commission was established in 1919. Its principal activities have been the promotion of zoning, subdivision control in the city and surrounding 6-mile strip, the preparation of a report on a Major Street System in 1927 and a Report on Park Conditions in 1929. Education of the public has been carried on through the Commission's monthly bulletin called "Plan-It," through coöperation with the Portland City Club, through high school essay contests, and through many public meetings. The zoning ordinance, adopted in 1924, still regulates only the use of property, building lines being established by eminent domain. Recent points of interest are the sea wall along the Willamette River, the bond issue of $5,717,418 in 1928 for carrying out street plan projects, the airport being developed by the Port Commission, the grouping of hospitals on Marquam Hill, and the continuing agitation for civic center development.

Refs. — 12, 14, 27, 41, 45, 82, 84, 87, 94, 97, 100, 124, 127, 129, 134, 136, 138, 159, 186, 189, 194–95, 197, 201, 212, 223–24, 231–32, 236, 240–41, 244, 252, 258, 266, 270–71, 276, 290.

PORTSMOUTH, N. H. The many historic houses of Portsmouth — a colonial seaport — are now somewhat protected by the comprehensive zoning ordinance, prepared for the Zoning Commission by Mr. Arthur C. Comey and adopted in 1927. There is no planning commission. The houses built by the United States Housing Corporation during the war (located about one mile from Portsmouth) have since been sold to individuals and are reported to be very popular.

Refs. — 182, 271.

PROVIDENCE, R. I. The father of city planning in Providence was the late Henry A. Barker, who had in 1905 secured the establishment of the metropolitan park system. The City Plan Commission was organized in 1914. The comprehensive zoning ordinance prepared with the advice of Messrs. Robert Whitten and C. F. Fisher, and adopted in 1923, has been exceptionally well administered. Mr. Robert Whitten's "Providence Traffic and Thorofare Plan," published in 1926, is being carried out by the Department of Public Works instead of by the special board proposed in the report and created by a legislative act which has since been repealed. A traffic survey, prepared with the advice of Mr. Miller McClintock, was published in 1928. There is a recognized need for land subdivision control outside the city limits.

Refs. — 27, 39, 89–90, 98, 114, 122, 126, 129, 136, 139–40, 145, 168, 172, 176, 180, 190–91, 194, 201, 207, 210–11, 213, 217, 221, 250–51, 253, 257, 266, 268, 284.

RALEIGH, N. C. The early planning movement in Raleigh resulting in an improvement report by Charles Mulford Robinson was sponsored by the Women's Club. The City Planning Commission, established in 1922, has concerned itself with zoning and subdivision control. The comprehensive zoning ordinance, framed with the advice of Mr. Jefferson Grinnalds, was adopted in 1923.

Refs. — 35, 129, 152, 190.

RICHMOND, VA. Richmond has no planning commission, but in the Bureau of Design of the Department of Public Works there is an active City Planning and Zoning Section of the Division of Planning. The original zoning ordinance was adopted in 1922. The Department of Public Works is extending the Randall topographic survey. Subdivisions are controlled for 5 miles outside the city limits. The Community Recreation Association expresses the need of more recreation facilities, especially for negroes. Some efforts are being made to preserve historic structures.

Refs. — 122, 149, 184, 202, 223–24.

ROANOKE, VA. Roanoke, studied in "Remodeling Roanoke" prepared for the Woman's Civic Betterment Club by Mr. John Nolen in 1907, engaged Mr. Nolen to prepare a Reconnaissance Survey in 1927 and then to prepare a comprehensive city plan, which has just been published in a handsomely illustrated volume. Special surveys are embodied in "Sanitary Roanoke" by Messrs. C. E. Emerson, Jr., and E. B. Whitman in 1907, "Public and Private Welfare" by Mr. F. W. Hoffer in 1928, and "Roanoke Industrial Survey" by the Technical Advisory Corporation in 1928. Adequate platting control, comprehensive zoning, a satisfactory park system, and a civic center — now lacking — are anticipated as a result of the comprehensive plan, under the guidance of the City Planning Commission, established in 1926.

Refs. — 38, 96, 105, 129, 134, 161, 223, 236, 248, 276.

ROCHESTER, N. Y. Divided into two sections by a river with deep gorges, Rochester is faced with problems of bridges and their approaches and with preserving the beauty of the river. The city is noted for its beautiful parks, developed from early Olmsted plans. Although there is a City Planning Commission, most of the actual planning is done by the Bureau of Design and Construction in the Department of Public Works. A remarkable record of activity appears in "The Rochester City Plan, — A Report of the Organization and Operation of the City Planning Bureau for 1918–1922" by Edwin A. Fisher, edited by Edward Hungerford, published by the city in 1923. "A City Plan for Rochester" by Messrs. Brunner, Olmsted, and Arnold was published in 1911. Rochester is one of the few cities in the United States where excess condemnation has been used successfully. The conversion of the abandoned bed of the Erie Canal into a subway with a road on the top is noteworthy, and also the proposal to construct a civic center over the river. A zoning ordinance regulating only the use of property was adopted in 1919. With the advice of Edward M. Bassett, Esq., a comprehensive zoning ordinance is now being prepared. The city and county coöperate in controlling land subdivision. In 1928, five men were appointed by the city manager to act as the nucleus for a Citizens' Committee on City Planning.

Refs. — 5, 13–14, 25, 36–37, 40–41, 51, 81, 88, 101, 103, 108, 113, 115–16, 126, 136, 139–40, 144, 152–53, 167, 190, 200–01, 206, 221, 234, 237, 250, 258, 273, 276.

SACRAMENTO, CAL. Sacramento is a fruit and meat packing center, as well as the state capital of California. The Plan Board, established in 1926, became the City Planning Commission in 1928. Its principal activity has been the preparation of a comprehensive city plan with the advice of Harland Bartholomew and Associates. Progress is reported in the Commission's bi-weekly bulletin. Subdivision control, now exercised for 3 miles outside the city limits, will prevent the very poor platting which has characterized past development. A zoning ordinance, regulating only use and height, was adopted in 1917, but a comprehensive zoning ordinance has just been adopted as part of the city plan. Sacramento was the first city in California to adopt (Sept. 27, 1928) a major street plan under the powers of the state enabling act of 1927.

Refs. — 27, 34, 87, 94, 103–05, 134, 148–49, 161, 174, 178, 194, 201, 206, 219, 231, 233, 275.

ST. AUGUSTINE, FLA. The very old city of St. Augustine with its colorful historic background has a zoning ordinance adopted in 1925 and a City Plan Board which reports itself entirely inactive. Little has been accomplished in accordance with the 1917 studies of the American Park Builders. The historic features of the city are well preserved.
Refs. — 258, 271–72.

ST. LOUIS, MO. The City Plan Commission started comprehensive planning in 1916, and has functioned actively and continuously, with the advice of Mr. Harland Bartholomew, for 14 years. The bond issue of $87,000,000 authorized in 1923 to carry out the proposals of the plan contained $15,000,000 for the creation of a Memorial Plaza as a civic center, the development of which is progressing rapidly under the guidance of the Plaza Commission. Street widenings have been unusually successful, in one case being the major factor in the rehabilitation of an entire district. About 85 per cent of the features of the major street plan have been carried out or initiated. The River des Peres project solved a difficult flood control and sewerage problem. When the comprehensive zoning ordinance, enacted in 1918, was declared unconstitutional 5 years later, incalculable damage to home neighborhoods occurred before the adoption of the present ordinance in 1926. Following other earlier transit reports, Mr. R. J. Kelker is making special studies for the Rapid Transit Commission. The most recent great proposal of the City Plan Commission is the splendid $50,000,000 riverfront development (see illustration accompanying Chapter III).
Refs. — 12–13, 17, 25, 27, 41, 63, 79, 81, 83, 89, 94, 102–03, 107, 112, 120, 124, 127, 131, 136–38, 148, 150, 163, 179–80, 188, 190, 194, 214, 216–17, 219–21, 223, 235, 241–42, 244, 252, 254, 259, 265, 267, 270, 274, 276, 282, 284.

ST. PAUL, MINN. Earlier published planning studies for St. Paul include those of the Capitol Approaches Commission, advised by Mr. Cass Gilbert, the 1911 preliminary plan by Mr. John Nolen, and the 1922 plan by Messrs. Bennett and Parsons. The City Planning Board, established in 1919, has been very active. A comprehensive zoning ordinance, prepared by Messrs. Frost and Herrold, was adopted in 1922. Adaptation of the zoning to the area affected by the great new Ford plant has resulted in a very desirable residential development. A county thoroughfare plan was completed in 1925, — an aid to subdivision control, which, even in incorporated territory, is under the jurisdiction of the county. One of the City Planning Board's present major enterprises is the marginal thoroughfare, to relieve the business district, now being constructed along the river, including an underground municipal parking garage. In 1928 the United Improvement Council sponsored a development program resulting in a bond issue of $15,000,000 to carry out approved plans. The Metropolitan Regional Planning Association of Minneapolis, St. Paul, and Environs has prepared a regional base map for a master plan.
Refs. — 5, 12, 14, 21, 27, 29, 33, 38, 52, 55, 58, 79, 85, 89, 92, 97, 101, 104, 120, 124, 127–28, 136, 139–41, 148–49, 152–53, 160, 167, 171, 174, 186, 190–91, 196, 201, 211, 214–15, 225, 230, 236–38, 244, 252, 254, 258, 261.

SALT LAKE CITY, UTAH. Salt Lake City has, within the city limits, 16 square miles of territory that is considered too mountainous for economical residential development. The unusually large blocks in the original plat of the city, each block containing 10 acres, have created another special problem. A planning commission, established in 1914, was changed to the Zoning Commission in 1927 with some planning functions. The original zoning ordinance was adopted in 1920. The late George E. Kessler's early planning studies were never completed. Planning interest is now strong, with support from leading realtors, and the city expects soon to start preparing a comprehensive city plan.
Refs. — 12, 14, 35–36, 38, 116, 128, 135, 137, 167, 182, 206, 212, 223, 226, 233, 276.

SAN DIEGO, CAL. The city plan for San Diego, the site of one of the earliest Spanish missions, was prepared by Mr. John Nolen in 1926, for the City Planning, Harbor, and Park Commissions, eighteen years after his early report to the Civic Improvement Committee. The present active City Planning Commission was established in 1923, following an earlier one created in 1916. Rough topography renders the commission's work for subdivision control particularly important. A use zoning ordinance was adopted in 1923, but a comprehensive ordinance is now being prepared. A civic center project on tidelands to be reclaimed has been approved by the citizens and now awaits ratification by the State Legislature. The port plan prepared in 1924 by Mr. Charles W. Staniford, and an airport, involving the reclamation of tidelands and the creation of a huge turning basin for ships, are being developed under the control of the Harbor Commission. The Civic Committee of the Chamber of Commerce has furnished unusually strong support for city planning projects.

Refs. — 12–15, 36, 41, 82, 90, 92, 97, 103, 128, 136, 139–41, 148, 153, 159–60, 167, 194, 202, 223, 232–33, 241, 244, 254, 266, 274.

SAN FRANCISCO, CAL. San Francisco failed to take advantage of the opportunity created by the earthquake to rebuild the city along the lines of the Burnham plan of 1905, although the Burnham civic center proposal stimulated the civic center (constructed on another site) which is one of the few distinctive municipal building groups in America. The City Planning Commission, established in 1917, has proved not very active, but several large planning projects have been undertaken by the city engineer. A new planning commission has recently been created. San Francisco adopted use zoning in 1921. Mr. Bion J. Arnold prepared transit studies in 1913. The San Francisco Traffic Survey Committee was responsible for the preparation by Mr. Miller McClintock of street traffic studies published in 1927, which have resulted in marked improvement, and for the major street plan now being prepared by Harland Bartholomew and Associates. The Regional Plan Association of the San Francisco Bay Counties went out of existence in 1928 when voluntary financial support failed. Of especial interest to the visitor to San Francisco are Golden Gate Park, the Market Street vehicular subway, pedestrian subways, the Islais Creek Reclamation District, established to reclaim 280 acres of land for port purposes, the water system plans and development, the Golden Gate Bridge District and the Bay Bridge proposal, and the Bay Shore Highway.

Refs. — 6, 14, 30, 33, 39, 56, 91, 121, 127–28, 131, 135–37, 145, 150, 159, 194, 196, 201–02, 209–10, 220–21, 241, 252, 257–58, 268, 270, 278.

SANTA BARBARA, CAL., AND REGION. The natural beauty of Santa Barbara has been enhanced by architectural control exercised by the Board of Review for nearly a year following the earthquake in 1925. Business streets are characterized by harmonious architecture, arcades, and the absence of overhanging street signs. Largely as a result of the efforts of the Community Arts Association, the city has won the National Better Homes Contest a number of times. The Santa Barbara County Planning Commission, created in 1927, is zoning selected sections of the county and considering measures to protect beaches against spoliation by oil development, as part of a comprehensive study of the county.

Refs. — 15, 51, 137, 187, 194, 197, 271–72, 277.

SANTA FE, N. M. The Old Santa Fe Association is preserving the Pueblo and Spanish landmarks and traditions of the city, and is endeavoring to incorporate their flavor in new architecture. The conflict between a desire to preserve the characteristic narrow streets

and a desire to widen or straighten them to facilitate traffic will probably result in a compromise. Billboards are prohibited by ordinance anywhere within the city limits and city-owned land almost completely surrounds the city. Santa Fe has no city planning commission but a fragmentary zoning ordinance was passed in September, 1928.
Refs. — 163, 271.

SAVANNAH, GA. The new Savannah as it has grown has not enjoyed the advantages of a city plan as did the old Savannah under General Oglethorpe. A voluntary citizens' committee sponsored a preliminary city planning survey in 1926 but no constructive planning grew out of it. Since the recent Georgia constitutional amendment, a committee of the city council is working to reëstablish the zoning overthrown during the period following the unfavorable Georgia court decision. Traffic conditions have changed since General Oglethorpe planned the many small squares that the city has always carefully preserved, but even to-day these squares do not seriously interfere with the movement of traffic, for in general, streets with squares alternate with through streets. The beauty of the city is largely dependent on these pleasant squares and fine trees, of which the city is justly proud.
Refs. — 4, 14, 80, 115, 141, 202, 223, 240, 273–75.

SCHENECTADY, N. Y. Schenectady was one of the first cities in New York to take advantage of the state legislation for the enforcement of the city plan, under the guidance of the City Planning Commission, established in 1923. The "official map," based on the major street plan prepared by Harland Bartholomew and Associates in 1924, has been printed on the sheets of a topographic map prepared by R. H. Randall & Company. A comprehensive zoning ordinance was adopted in 1927. The Schenectady Planning Association has assisted in securing necessary city legislation and appropriations for city planning. Traffic control and street planning have been unusually well coördinated.
Refs. — 37, 74, 79, 85, 94, 98, 103, 108, 122, 129, 136, 139, 149–50, 152–53, 157, 159, 179, 196, 198, 211, 219, 232, 284.

SEATTLE, WASH. The report on the Plan of Seattle prepared by Mr. Virgil G. Bogue in 1911 was one of the earliest city plans with a regional outlook. It paved the way for the present municipal port development under an active Port Commission with a comprehensive port plan. The elimination of unnecessary trackage and unified operation of port railroad facilities are being secured. A comprehensive zoning ordinance was adopted in 1923 and a City Planning Commission was appointed in 1925. Subdivision control is exercised only within the city limits. Extensive regrading projects have been carried out under the direction of the city engineering department. The King County Regional Planning Commission is embarking upon a program of county planning.
Refs. — 11–12, 14, 33, 39, 41, 51, 53, 85, 100, 102, 115, 126, 129, 134, 136, 160, 167, 179, 201, 231, 236, 239, 242, 248, 250, 253, 257, 276.

SPOKANE, WASH. The City Plan Commission first became active in 1909 but met with reverses. At the present time, the Plan Commission with the coöperation of the Spokane Realty Board is preparing a comprehensive zoning ordinance. When this has been put into effect, further planning studies will be undertaken.
Refs. — 34, 36, 88, 224, 226, 248, 250, 255.

SPRINGFIELD, MASS. Springfield is noted for its civic building group designed by Helmle and Corbett. Supplementary plans aim to make the final grouping still more effective. The Springfield City Planning Board, appointed in 1921, authorized the preparation of a comprehensive city plan by the Technical Advisory Corporation and

Olmsted Brothers, which is serving as a guide for improvements under an active planning commission. The comprehensive zoning ordinance, since revised, was adopted in 1922. Subdivision control has aided in producing desirable suburbs. A new union railroad station has been built recently but the city's complicated railroad problem is by no means solved. Extensive riverfront improvements are contemplated to secure recreational shores.

Refs. — 34, 36, 91, 96, 103, 107, 123–24, 126, 134, 139–40, 167, 189, 201–02, 209, 211, 213, 219–20, 223, 232–33, 265, 375.

SYRACUSE, N. Y. Planning progress in Syracuse is awaiting the successful solution of the serious railroad grade crossing problem. In 1917, Mr. Bion J. Arnold prepared a report on grade crossing elimination, and ten years later, Messrs. Fay, Spofford, and Thorndike prepared a report for the Syracuse Grade Crossing Commission; but to date, no physical accomplishments have resulted. The original city planning commission, which was established in 1914 and prepared a report on City Planning for Syracuse in 1919, was superseded in 1922 by the Planning, Parks, and Recreation Commission which has been primarily concerned with park development. A use zoning ordinance was adopted in 1922. Subdivision control is exercised for 3 miles outside the city limits. The Onondaga County Park and Regional Planning Board, established in 1927, has undertaken county planning studies.

Refs. — 12, 37, 41, 51, 81, 108, 113, 122, 126, 128, 144, 160, 171, 175, 223, 232, 236, 253.

TACOMA, WASH. On a wooded peninsula, Point Defiance Park, planned by Hare and Hare and developed with fine drives, adds to the striking character of the city. Tacoma adopted a use zoning ordinance in 1919. Following an advisory committee of fifteen appointed by the mayor to study city planning, an official City Planning Commission has recently been appointed (1929).

Refs. — 12, 14, 38, 52, 82, 137, 240, 244, 252, 258, 274.

TOLEDO, O., AND REGION. The City Plan Commission, established in 1922, secured the adoption of comprehensive zoning in 1923, and the preparation of a comprehensive series of city planning reports by Harland Bartholomew and Associates, published in 1924. A civic center is gradually being developed. Griffenhagen and Associates made a port survey in 1928. The Lucas County Planning Commission, created in 1923, engaged Harland Bartholomew and Associates to study a system of major highways and parkways for the county, resulting in a report published in 1928. The county regulations for subdivision control are used also by the city, and there is excellent coördination of city and county planning activities.

Refs. — 14, 28–29, 50, 79, 87, 95–97, 112, 124, 127, 148, 160, 174, 219, 223, 233, 241, 248, 265, 268–69.

TOPEKA, KAN. The City Planning Commission, appointed in 1920, authorized the preparation of a comprehensive city plan by Bartholomew and Associates in 1923. Little of this plan has been carried out. A zoning ordinance was adopted in 1923. A partial city plan had been prepared by Charles Mulford Robinson in 1913 and a health survey was made by the Russell Sage Foundation in 1914.

Refs. — 27, 97–98, 124, 140–41, 172, 201, 223.

TRENTON, N. J. Following various earlier park and planning studies, Trenton had a city plan prepared by the Technical Advisory Corporation in 1928, but no steps have been taken to carry out this plan, nor has the long-term financial program which formed part of it been followed. A use zoning ordinance was adopted in 1927. There is no city planning commission.

Refs. — 54, 105, 108, 122, 135, 141, 173, 237.

TUCSON, ARIZ. The City Planning Commission of Tucson, a health and pleasure resort, was established in 1926. This commission has prepared a comprehensive zoning ordinance, not yet adopted. Despite its very rapid growth, the city has not recognized the need of a comprehensive city plan nor does it exercise subdivision control.
Ref.—14.

TULSA, OKLA. A thriving oil city, Tulsa appointed its City Plan Commission in 1923 and adopted its zoning ordinance the same year. Subdivision control is exercised for 3 miles outside the city by the Tulsa Regional Plan Commission, created for this purpose. In 1927, a bond issue of $1,250,000 was voted to pay the city's share of the cost of street improvements and changes in connection with a new union railroad station soon to be erected. In 1928, the city engaged Bartholomew and Associates to prepare a comprehensive city plan.
Refs. — 12, 36, 51, 81, 89, 94, 97, 128, 134, 180, 184, 232, 234, 238, 261.

WAKEFIELD, MASS. The Town Planning Board, established in 1916, authorized the preparation of a comprehensive plan by Mr. Arthur C. Comey. Street improvements are being made in accordance with this plan. A comprehensive zoning ordinance, adopted in 1925, is protecting and enhancing the "home values" of this residential town.

WASHINGTON, D. C., AND NATIONAL CAPITAL DISTRICT. The distinguished planning history of Washington dates from the original plan prepared by Major L'Enfant in 1791, neglected in the early nineteenth century, but revived through the efforts of Senator McMillan when the Senate Park Commission was created. The Plan of 1901–02 prepared by this commission composed of Burnham, Olmsted, St. Gaudens and McKim is largely responsible for the Union Station, Potomac Park, the Lincoln Memorial, and the Arlington Bridge. To the protection and development of this plan, the National Commission of Fine Arts, established in 1910, has been devoted. Washington adopted a comprehensive zoning ordinance in 1920. In recognition of the unfortunate suburban development resulting from the stereotyped highway extension plan drawn up in 1893, and of the need for thoroughly comprehensive planning of the District, which had been brought to the attention of the entire Nation through the efforts of the American Civic Association in 1926, the recently formed National Capital Park Commission was increased in membership and powers to form the National Capital Park and Planning Commission. This commission is now engaged in preparing plans for the development of the entire District of Columbia, and coöperating with the Maryland-National Capital Park and Planning Commission which was authorized in 1927 to carry on comprehensive planning in the surrounding Maryland counties and already has zoning, subdivision control, and parkway development to its credit. In Washington the magnificent new public building group now being constructed on the Triangle, suburban replatting, and park and parkway acquisition show that our National Capital is securing beauty and efficiency from the modern planning movement.
Refs. — 4, 6–7, 13–15, 17,27, 41, 48–49, 58–59, 80, 83, 89, 91, 93, 105, 108, 123, 129, 131–32, 136, 140–41, 150, 155, 159–60, 166, 171, 179, 185, 189, 191, 199, 201, 206, 209, 217, 219–20, 234, 236–38, 248, 252–53, 259, 263–64, 266, 269, 273–77, 284.
Refs. to Maryland–National Capital District — 20, 35, 37, 46, 49, 58–59, 108, 148, 152–53, 157, 160, 166, 199.

WESTERLY, R. I. The Zoning Board, appointed in 1925, acts also as a planning commission. Zoning and platting control in unbuilt areas within the city limits are being correlated in an unusually effective manner. A comprehensive zoning ordinance was adopted in 1925, with the advice of Mr. Robert Whitten, who also prepared in the same

year the Westerly Thorofare Plan. Wilcox Park, with public buildings grouped about it, is noteworthy. Westerly proves that planning is necessary and beneficial to a smaller town.

Refs. — 152, 158, 167, 182, 194, 269.

WHITE PLAINS, N. Y. White Plains appointed its City Planning Board in 1927. The Bureau of City Plan is in the Department of Public Works. The city plan, prepared by Messrs. Goodrich and Whitten, and published in 1928, includes a 50-year budget and a confidential 50-year program of improvements prepared with the aid of an Advisory Committee appointed by the mayor. During the preparation of the city plan, a special city plan committee of 7 members kept citizens informed and interested. The zoning ordinance had been adopted in 1920, and subdivision control exercised within the city limits. All important railroad crossings have been separated. The Westchester County park system is an important asset to White Plains.

Refs. — 15, 40, 80, 89, 105, 108, 111, 120–22, 124, 140, 153, 159, 188, 223, 252.

WICHITA, KAN. Under the guidance of the city engineer, zoning, subdivision control, and street system improvements have been constructively developed in Wichita, making the city a distinguished example of planning progress (see Chapter IX). The City Planning Commission, appointed in 1921, sponsored the preparation by Harland Bartholomew and Associates of a zoning ordinance, adopted in 1922, and a comprehensive city plan published in 1925. A post office located contrary to the city plan will make the civic center a difficult achievement. The widening, deepening, and straightening of the channel of the Arkansas River as a necessary flood prevention measure has been definitely related to city planning.

Refs. — ix, 12, 27, 36, 92, 97, 104–05, 111, 125, 128, 133, 136–37, 140, 149, 159, 167, 171, 190, 211, 214–15, 224, 228, 259, 267.

WILMINGTON, DEL. The park system, Rodney Square, and the harbor development are of interest in Wilmington. The city has a Zoning Commission and a comprehensive zoning ordinance, prepared by the Technical Advisory Corporation and adopted in 1924. Subdivision control exercised for only $\frac{1}{2}$ mile outside the city is ineffective because most of the new development is taking place farther out. All main line railroad crossings have been separated.

Refs. — 27, 54, 117, 129, 144, 173, 234, 237, 240, 266, 268.

CITIES VISITED DURING FIELD STUDY WHICH REPORTED A COMPREHENSIVE CITY PLAN OR MAJOR STREET PLAN OFFICIALLY ADOPTED BY THE CITY

Baltimore, Md. (1898)
Canton, O.
Cincinnati, O.
Detroit, Mich. (master plan)
Indianapolis, Ind.
Pittsburgh, Pa.
Ponca City, Okla.
Sacramento, Cal.
Schenectady, N. Y.
Springfield, Mass.

In several other cities, plans have what amounts to an official status.

REFERENCES TO OTHER CITIES

Briarcliff Manor, N. Y., 121.
Bronxville, N. Y., 121, 182, 215.
Brookline, Mass., 215.
Burbank, Cal., 186.
Cedar Rapids, Ia., 268.
Corpus Christi, Tex., 257.
East Orange, N. J., 122.
Elmira, N. Y., 236–37.
Euclid Village, O., 164.
Flint, Mich., 13, 255.
Forest Hills, N. Y., 155, 268.
Gary, Ind., 255.
Hastings, N. Y., 182, 215.
Jamestown, N. Y., 74.
Lockport, N. Y., 98.
Longview, Wash., 155.
Mamaroneck, N. Y., 121, 268.
Mariemont, O., 155.
Miami, Fla., 257.
Mobile, Ala., 257.
Morristown, N. J., 121.
New London, Conn., 238.
New Rochelle, N. Y., 90, 121.
Ojai, Cal., 197.
Oswego, N. Y., 241.
Palos Verdes, Cal., 155, 278.
Pasadena, Cal., 186, 268.
Pontiac, Mich., 134, 151.
Radburn, N. J., 158, 206, 256.
Rancho Santa Fé, Cal., 155, 278.
Riverside, Cal., 147.
Rye, N. Y., 121, 268.
St. Charles, Ill., 111, 277.
St. Petersburg, Fla., 257.
San Antonio, Tex., 271–72.
Tampa, Fla., 257.
University City, Mo., 104.
Utica, N. Y., 135, 289.
West Hartford, Conn., 157.
West Palm Beach, Fla., 182.
Williamsburg, Va., 272.
Winnetka, Ill., 172, 277.
Winston-Salem, N. C., 255.
Worcester, Mass., 125, 135.
Youngstown, O., 13, 26, 142, 145.

REFERENCES TO COUNTIES

Allegheny Co., Pa., 46, 49, 57, 59, 108, 144, 253.
Bergen Co., N. J., 56.
Cook Co., Ill., 52, 55, 131, 208, 251, 253.
De Kalb Co., Ga., 144.
Erie Co., N. Y., 48, 57, 196.
Essex Co., N. J., 52, 56, 251–52, 260.
Fairfield Co., Conn., 56.
Fulton Co., Ga., 62, 144.
Glynn Co., Ga., 22, 46, 51, 57, 59, 62, 93, 103, 144, 155, 163, 201, 257, 272.
Hamilton Co., O., 46, 50, 56.
Kenosha Co., Wis., 62.
King Co., Wash., 51.
Los Angeles Co., Cal., 22, 46–47, 49, 56–57, 59–62, 109, 137, 144, 149, 160, 163, 186, 190, 198, 236, 248.
Lucas Co., O., 46, 50, 57, 60, 144.
Macomb Co., Mich., 53.
Milwaukee Co., Wis., 22, 46, 50, 57, 59, 62, 117, 144, 148–49, 151, 158–59, 163, 166, 187, 190, 198–99, 251.
Monroe Co., N. Y., 51.
Montgomery Co., Md., 49, 62, 189.
Niagara Co., N. Y., 48, 57, 196.
Norfolk Co., Va., 55.
Oakland Co., Mich., 53.
Onondaga Co., N. Y., 51, 57.
Passaic Co., N. J., 51–52, 56.
Prince George's Co., Md., 49, 62, 189.
Princess Anne Co., Va., 55.
Putnam Co., N. Y., 51.
Ramsey Co., Minn., 196.
Santa Barbara Co., Cal., 57, 144, 147.
Union Co., N. J., 251, 260.
Wayne Co., Mich., 22, 52–53, 59, 144, 251, 253.
Westchester Co., N. Y., 52, 56, 91, 208, 220, 251–52, 254, 259–61.

PRINCIPAL REFERENCES TO STATES

Alabama, 21.
Arizona, 21.
Arkansas, 20, 71, 154.
California, 20, 24–25, 68, 70–72, 75–76, 96, 154, 162–63, 171, 279.
Colorado, 20, 24.
Connecticut, 20, 24, 72–73, 76, 198.
Delaware, 27, 163.
Florida, 21, 69–70, 279.
Georgia, 21, 26, 177.
Idaho, 163.
Illinois, 20, 24, 55, 71, 76, 163.
Indiana, 20, 24, 68, 73, 75–76, 90, 149.
Iowa, 20, 69, 71, 73, 75–76.
Kansas, 20, 70, 76, 163.
Kentucky, 21, 56.
Louisiana, 163.
Maine, 16.
Maryland, 24–25, 48, 61.
Massachusetts, 20, 23–25, 27, 65–67, 73–74, 162–63, 279.
Michigan, 22, 24, 73, 76, 163.
Minnesota, 22, 25, 70, 73, 90, 171.
Mississippi, 163.
Missouri, 20, 25–26, 76, 177.
Montana, 20, 154, 163.
Nebraska, 71.
Nevada, 163.
New Hampshire, 72.
New Jersey, 20–21, 24, 26, 70–73, 76, 81, 162, 176–77, 188–89, 208, 224.
New Mexico, 163.
New York, 20, 23–25, 71–74, 157, 162, 169, 189, 198, 224.
North Carolina, 21, 76.
North Dakota, 20, 23–24, 71, 73.
Ohio, 20, 24, 27, 56, 68, 72, 75–76, 116, 163.
Oklahoma, 22, 52, 70, 76.
Oregon, 69, 73, 76.
Pennsylvania, 20, 23, 27, 65–67, 72–75, 89, 163, 201.
Rhode Island, 24.
South Carolina, 163.
South Dakota, 163.
Tennessee, 20, 27, 71.
Texas, 21, 26, 70, 75–76, 78, 163, 177.
Utah, 21, 27, 38, 116.
Vermont, 72, 163.
Virginia, 24, 27, 48, 71, 189.
Washington, 69, 71, 73, 76, 171.
West Virginia, 163.
Wisconsin, 20, 22, 24–25, 69–70, 75–76, 117, 133, 162–63.
Wyoming, 163.

APPENDIX III

PERSONS WHO FURNISHED MAJOR INFORMATION FOR THE FIELD STUDY

The authors regret that limits of space prevent the listing of all officials and citizens in the many cities visited who kindly gave a brief interview to the field representative during the field study.

Abel, Robert, Tacoma
Adams, John H., Birmingham
Adams, Thomas, New York
Alexander, H. W., St. Louis
Alison, Alexander, 3rd, Bridgeport
Alvord, Alfred E., Newton
Ames, George M., Grand Rapids
Ameter, Fred, Denver
Arnold, Eugene E., Roanoke
Arthur, U. N., Pittsburgh
Ashton, Edward M., Salt Lake City
Atkinson, M. H., Bismarck
Augur, Tracy B., Detroit
Aumack, H. F., Spokane

Bacon, Mrs. Albion F., Evansville
Baggett, Frederick R., Albany
Bailey, R. M., Savannah
Baird, Dr. W. J., Boulder
Ball, Charles B., Chicago
Bancroft, Lee H., Lansing
Barbot, Joseph C., Charleston
Barker, Henry A., Providence
Barkhuff, W. D., Seattle
Bartholomew, Harland, St. Louis
Bass, Mayor, Chattanooga
Bassett, E. M., New York
Baum, H. J., Altoona
Bell, J. L., Bismarck
Bennett, Charles B., Milwaukee
Berney, Morris E., Fort Worth
Bettman, Alfred, Cincinnati
Bibbins, J. Rowland, Washington
Bigger, Frederick S., Pittsburgh
Black, Mr. and Mrs. Russell V., Philadelphia
Blanchard, R. W., Evansville
Blucher, W. H., Detroit
Bowers, G. M., Richmond
Bowman, John, Salt Lake City
Brandes, Fred C., White Plains
Brandt, William, Toledo
Brassie, R. A., Lafayette
Breaux, G. A., Louisville
Bridge, Edward M., Wakefield
Briggs, Dr. B. H., Albuquerque
Brimmer, George E., Cheyenne
Brockway, P. L., Wichita
Brown, Major Carey H., Washington
Brownlow, Louis, Radburn, N. J.
Buck, George S., Buffalo
Buckingham, H. B., Tulsa
Buettner, Leo J., Johnstown
Buttenheim, Harold S., New York

Calrow, Major C. J., Norfolk
Capps, Count B., Fort Worth
Carhart, Arthur H., Denver
Carr, O. E., Fort Worth
Cary, Dr. E. H., Dallas
Cate, Mrs. G. V., Brunswick
Cavanaugh, W. F., Milwaukee
Chadwick, C. C., Newton
Chaney, R. C., Columbus
Cheney, Charles H., Palos Verdes, Cal.
Child, Stephen, San Francisco
Clark, Roscoe N., Hartford
Comey, Arthur C., Cambridge, Mass.
Comfort, Arthur B., Tacoma
Conley, Charles E., Cleveland
Conover, Reeve, Monterey
Cook, A. A., Tacoma
Corcoran, Edward J., Newport
Corthell, N. E., Laramie
Cowan, A. H., Greensboro
Cowden, Clark, Harrisburg
Craft, F. M., Atlanta
Crane, A. G., Laramie
Crane, Jacob L., Jr., Chicago
Craven, J. A., Dayton
Crawford, Andrew Wright, Philadelphia
Culbreth, Mayor E. E., Raleigh

Davidson, A. E., Grand Rapids
Dealey, George B., Dallas
De Boer, S. R., Denver

Denton, H. G., Sacramento
Devalon, E. W., Boulder
Dickinson, William C., Nashville
Diggs, Charles H., Los Angeles
Dimock, A. H., Seattle
Donnelly, Charles E., Kansas City
Doolittle, Will, Tulsa
Douglas, James T., Newport
Downer, Jay, Westchester County
Downing, R. L., Boulder
Draper, Earl S., Charlotte, N. C.
Dunn, W. H., Kansas City

Eliot, Charles W., 2nd, Washington
Elwood, P. H., Jr., Ames
Englehardt, J. T., Chattanooga
Eppich, L. F., Denver
Erickson, D. L., Lincoln
Evinger, M. I., Lincoln

Fisher, Charles F., Akron
Fisher, Edwin A., Rochester
Flower, John S., Denver
Ford, George B., New York
Foster, Col. E. N., Fort Wayne
Fowler, W. B., Memphis
Francis, Mayor Frank, Ogden
Froerer, Fred, Ogden

Gaddis, T. E., Salt Lake City
Gaines, E. L., Seattle
Garber, J. O., Toledo
Gardner, Kenneth, San Diego
Garfield, Charles W., Grand Rapids
Gheen, J. E., Albany
Gillette, Charles F., Richmond
Gimre, Gerald S., Youngstown, O.
Gindrat, N. R., Camden
Godward, A. C., Minneapolis
Goodrich, E. P., New York
Gork, L. Henry, Grand Rapids
Graham, J. W., Nashville
Gregg, John W., Berkeley
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